Training to Fight

– Russia's Major Military Exercises 2011–2014

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Alexander Suvorov, Russian general, (1833). In a military career lasting almost 60 years, Suvorov (1729-1800) never lost a battle. In 1799-1800, during the War of the Second Coalition against France, he led a Russian army on an epic retreat across the Alps reminiscent of Hannibal. Found in the collection of The Hermitage, St Petersburg.

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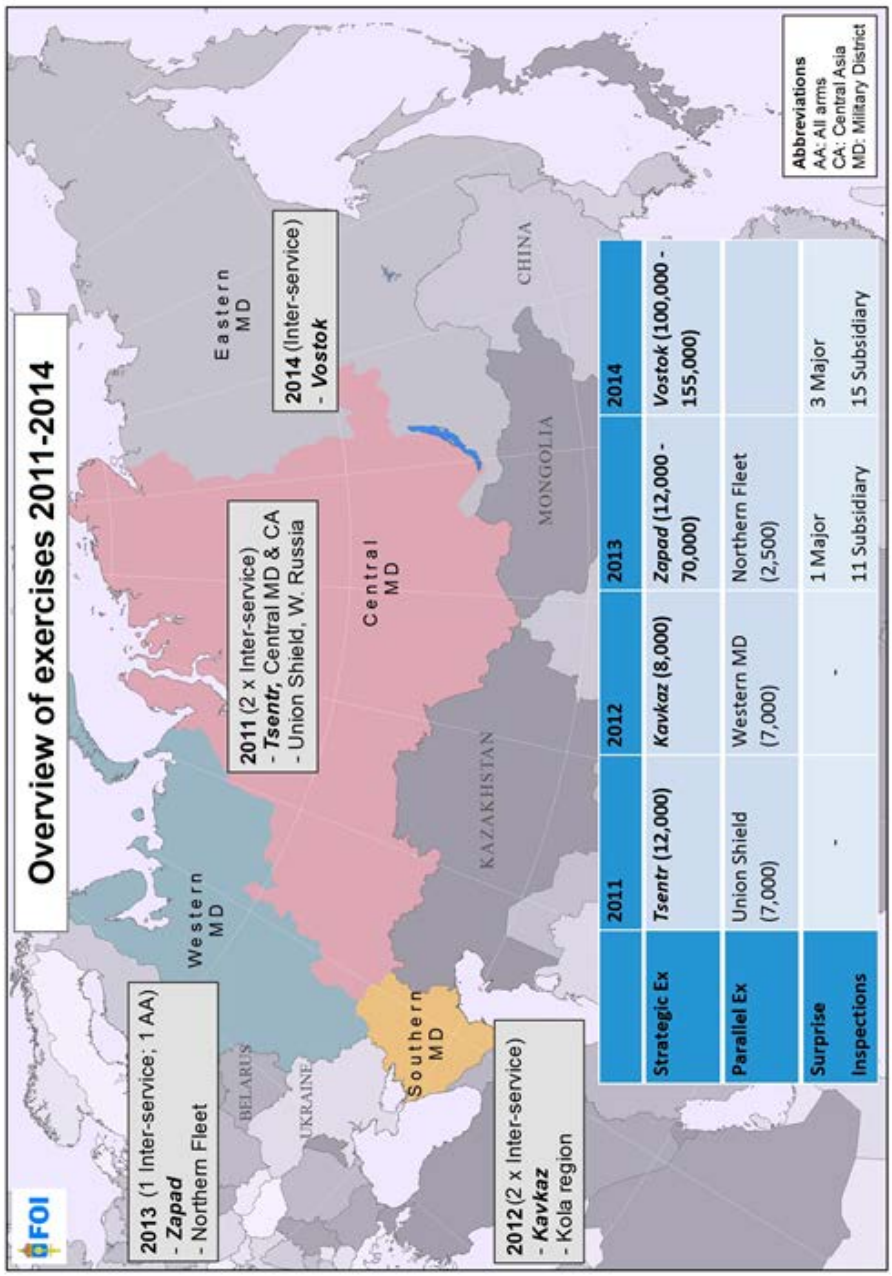
Summary

This report examines what writing in open sources in Russia such as the MoD website and the military press revealed about how military exercises contributed to the fighting power of Russia's Armed Forces in the four years 2011–2014. The main conclusion is that Russia's Armed Forces trained to launch and fight large-scale joint inter-service operations, i.e. launching and waging interstate wars.

The report focuses on two types of exercises that are relevant for the fighting power of Russia's Armed Forces: annual strategic exercises and surprise inspections. The former rotated between Russia's four military districts on a regular basis and were the crowning event of the annual training cycle in the Armed Forces. The Armed Forces probably planned these exercises carefully to maximise the effect of the training. The latter pertained more to checking and developing combat readiness.

The map in figure 1 sums up the major military exercises in Russia in 2011–2014. It shows that the Russian Armed Forces carried out at least one joint inter-service exercise each year in the three years 2011–2013. This enabled senior Russian military and political decision makers to exercise in a scenario where Russia was fighting two operations at the same time. In 2011 and 2012, smaller parallel joint inter-service exercises took place simultaneously. In 2013, the parallel exercise was a Navy exercise, but probably coordinated with the annual strategic exercise. In 2014, the size of the annual strategic exercise, 155,000 men, made parallel exercises redundant. In 2013 and 2014, the Russian Armed Forces also carried out surprise inspections to check and develop combat readiness, both in separate functions in the Armed Forces and in systemic tests in entire military districts. Altogether, these exercises related to Russia's collective ability to launch and wage interstate wars in all of Russia's strategic directions.

Map 1 Overview over exercises 2011–2014



	2011	2012	2013	2014
Strategic Ex	*Tsentr* (12,000)	*Kavkaz* (8,000)	*Zapad* (12,000 - 70,000)	*Vostok* (100,000 - 155,000)
Parallel Ex	Union Shield (7,000)	Western MD (7,000)	Northern Fleet (2,500)	
Surprise Inspections	-	-	1 Major 11 Subsidiary	3 Major 15 Subsidiary

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Maps

All maps are available at www.foi.se/russia/maps

1 Introduction

Russia used armed force against Georgia in 2008 and Ukraine in 2014 to achieve political goals. Ever since Russia launched its war against Ukraine, it has continuously threatened to use armed force. In 2008, most observers described the performance of Russia's Armed Forces as somewhat lacklustre. In contrast, the operation to seize Crimea in February–March 2014 came across as professionally executed (although it actually faced little organised armed resistance). The difference in performance within less than six years came after the organisational changes started under Defence Minster Anatoli Serdiukov (2007–12). Increased defence spending accompanied the Serdiukov reforms. An ambitious rearmament programme started in 2011. However, money, the gradual introduction of new or modernised equipment and reorganisation can hardly explain all of the change in perceived fighting power. Russia's Armed Forces have also been exercising extensively, training to fight major ground forces-centric operations often escalating into nuclear exchanges.

"*Tiazhelo v uchenii, legko v boiu*" roughly translates into "difficult on exercise, easy in battle" or more succinctly "Train hard, fight easy". The phrase is often attributed to the Russian 18th-century General Aleksandr Vasilevich Suvorov (on the front cover), said to never have lost a battle. Both military academies across the world and reporting about Russian military exercises sometimes refer to General Suvorov's dictum. The main idea is that the more you practise doing something, the better you get at doing it, especially under difficult circumstances. Conventional wisdom has it that a fighting force can do in combat what it has done on exercise. A well-exercised force is thus a more credible tool for use both directly, in operations against an adversary, and indirectly, threatening a potential adversary with armed force.

In 2010, the Swedish Defence Research Agency (FOI) published a report analysing Russia's annual operational strategic exercises in 2009 and 2010.[1] The analysis noted that increased defence budgets in the preceding years had enabled Russian exercise activities to increase in size and scope. In 2009, the Russian Armed Forces *Osen* (Autumn) exercise series spanned over three months and exercises took place in training areas in the North Caucasus (*Kavkaz*-2009), in north-west Russia (*Ladoga*-2009) and in Belarus and the Baltic Sea (*Zapad*-2009) (Ekström, 2010:25–54). Altogether, these three exercises involved some 28,000 servicemen. The Russo-Belorussian *Zapad*-2009 with 12,500 participants was at the time the biggest exercise since the end of the Soviet Union (ibid.:3). Already the year after *Vostok*-2010 beat that record with an assessed 20,000 servicemen involved in the exercise (ibid.:56). At unit level as well, between 2011 and 2013 Russia's Armed Forces increased the number of their exercise activities

[1] Ekström, 2010 (in Swedish).

(Hedenskog and Vendil-Pallin, 2013:47). In 2014, the *Vostok*-2014 exercise reportedly included 155,000 servicemen and -women (MoD, 2014an).

In addition to the Armed Forces under the Ministry of Defence (MoD), the annual strategic exercises also involved many other parts of Russia's entire military organisation,[2] i.e. all the ministries, agencies and forces working with Russia's military security. More specifically, exercises included forces from for example the Interior Ministry (Ministerstvo Vnutrennykh Del, MVD) and the Federal Security Service (Federalnaia Sluzhba Bezopasnosti, FSB). These exercises also included Russia's allies, primarily within the Collective Security Treaty Organization, CSTO.

A branch of service (*vid vooruzhennykh sil*) means a component of the armed forces designated for waging military action in a specific sphere: on land, in the air and at sea, i.e. the Ground Forces, the Air Force and the Navy. Each branch of service in turn consists of arms of service (*rod voisk* in the Ground Forces and in the Air Force; *rod sil* in the Navy), special units and support units. Table 1 gives an overview of the branches and arms of service in the Russian Armed Forces.

Annual strategic exercises enabled the Armed Forces under the MoD (hereafter called the Armed Forces) to train for joint inter-service operations, i.e. when different branches of service cooperated under an integrated plan.[3] These exercises were also an opportunity to train for all-arms operations, i.e. involving several arms of service within a branch. For the Russian Ground Forces this included for example motor rifle, tank, artillery, air defence and engineer troops operating under a common plan.[4]

[2] "Military organisation" denoted the Russian Federation's total military resources: ministries, agencies, command structures, forces, the defence industry etc. (Military Doctrine of the Russian Federation 2014, para 8K). In addition to the MoD, many government ministries have armed units (ibid. para 12), http://static.kremlin.ru/media/events/files/41d527556bec8deb3530.pdf (accessed 22 August 2015).

[3] This is based on the Russian definition of a joint operation, *sovmestnaia operatsiia*, in *Voenny Entsiklopedicheski Slovar (VES)*, Voennoe Izdatelstvo, Moscow, 1984, pp. 687–88.

[4] This is based on the Russian MoD online Military Encyclopedia definition of "*obshchevoiskovoi boi*" (all-arms combat); http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=7346@morfDictionary). An overlapping Western term is "combined arms". "All-arms" is used here for brevity.

Table 1 Overview of the key branches and arms of service in the Russian Armed Forces 2011–2014[5]

Branches of service of the Armed Forces

	Arms in each branch of service
Ground Forces[6]	Motor rifle troops
	Tank troops
	Rocket and artillery troops
	Air defence troops
	Reconnaissance troops
	Engineer troops
	Radiological, chemical and biological defence troops
	Signal troops
Air Force[7]	Long range [bomber] aviation
	Frontal Aviation
	Military Transport Aviation
	Army Aviation
	Air Defence Forces
	Special units (such as reconnaissance, signals, radar, command and control support, electronic warfare and engineers)
Navy[8]	Surface Combat Forces
	Submarine Forces
	Naval Aviation
	Coastal Defence Forces
	Coastal Rocket and Artillery Forces
	Naval Infantry

Arms of service of the Armed Forces (Independent arms of service)

	Airborne Forces[9]
	Strategic Missile Forces[10]
	Aerospace Defence Forces[11]

[5] Further details are available, but this overview, valid for the period studied, is sufficient for this study. In August 2015, the Russian Armed Forces merged the Air Force and Aerospace Defence Forces into a new branch, the Aerospace Forces. Website of the Russian MoD: http://structure.mil.ru/structure/forces/type.htm (all accessed 30 October 2015)

[6] http://structure.mil.ru/structure/forces/ground/structure.htm

[7] http://structure.mil.ru/structure/forces/vks/structure.htm

[8] http://structure.mil.ru/structure/forces/navy/structure.htm

[9] http://structure.mil.ru/structure/forces/airborne.htm

[10] http://structure.mil.ru/structure/forces/strategic_rocket.htm

[11] http://structure.mil.ru/structure/forces/cosmic.htm

The increasing size and complexity of the exercises in the period 2011–2014 were hardly a coincidence but probably reflected how Russian military planners think they can best use existing assets to handle perceived future threats and adversaries. In addition to the increasing size of the annual strategic exercises, 2013 also saw the reintroduction of surprise combat readiness inspection exercises,[12] also called snap inspections. The Russian term is *vnezapnye proverki*, and the literal translation "surprise inspections" represents this phenomenon in this report (see chapter 3).

Why do armed forces exercise? To develop Suvorov's notion on a more general level, exercises can serve to build capabilities. Army General Arkadi Bakhin, first deputy defence minister, noted on the radio station *Ekho Moskvy*'s weekly military talk-show *Voenny Sovet* (Military Council) that one aim of exercises is to identify problems so that they really can be rectified (*Ekho Moskvy*, 2013). Furthermore, the military daily *Krasnaia Zvezda* noted a comment by Chief of the General Staff (CGS) Army General Gerasimov in October 2013 after the *Zapad*-2013 exercise to the effect that the Armed Forces used exercises to identify and address shortcomings and to ensure that Russia's force development process is on the right path (Tikhonov, 2013c). Exercises are thus a way to test procedures, plans, equipment and capabilities in conditions as close to real operations as possible. Exercises can also serve to strengthen bilateral relations and alliances, in Russia's case primarily the CSTO. Those exercises clearly have a political dimension in signalling long-term commitments.

It can be tempting to try to detect short-term political signals regarding such things as intentions in exercises. Military planners rarely speak openly in detail about how they view possible wars and adversaries. Discussions about reading intentions or possible adversaries into exercises tend to become speculative. There were claims that the imagined adversary in Russia's strategic exercise *Tsentr*-2011 was Iran (Khramchikhin, 2011), with which Russia then had relatively good relations. Iran may well have been the adversary in the exercise, but the Russian MoD is unlikely to verify that. What is clear is that *Tsentr*-2011 provided an opportunity to practise strategic deployments and joint inter-service, inter-agency operations with allies as well as command and control. Here, the focus is on exercises as opportunities for building capabilities.

[12] *Vnezapnaia proverka* in the nominative singular. The Russian MoD website also gave links to search hits that were in other cases and in the plural. The number of press releases found by searching for the nominative singular was sufficient to provide a range for further reading.

2 Aim, scope, sources, delimitations and outline

The overall assumption underpinning the approach in this report is that military exercises reveal something about the fighting power of the forces involved and thus about the military power of the country in question. Systematically describing exercises would thus make it possible to draw conclusions about fighting power and military power.

The ensuing research question is what Russian official statements and media reporting about military exercises in 2011–2014 may reveal about Russia's military power. More specifically this pertains to three issues. First, what is the stated nature of the exercises: strategic, operational, tactical, command and control, combined forces (with allies) or joint forces (inter-service), all-arms combat, peacekeeping or anti-terrorism operations? Second, what is the stated scope and size of the military exercise in terms of the number of servicemen and pieces of hardware, branches and arms of service participating, and forces from other ministries and allies? Third, what do the aim and scope say about Russia's ambitions in terms of military power? In this context, the design and possible political implications of exercise scenarios are less important. The aim of this report is to examine Russian strategic military exercises in the period 2011–2014 and their scope to draw conclusions about how they may affect Russia's military power and the fighting power of its armed forces.

2.1 Framework of analysis

Based on Russian definitions,[13] military power, *voennaia moshch*, denotes the ability of a state or a coalition of states to influence other states or international relations through the indirect or direct use of military force and to successfully wage armed combat, and its [the state's] ability to organise physical and moral resources for this (Military Encyclopaedia, 2015; see appendix 8 for more details).

The main part of military power is fighting power, *boevaia moshch*: the totality of material and moral factors that define the state of the [armed] forces and their operational ability to perform tasks given to them. More specifically, fighting power includes the quantity and quality of the armed forces, manning and equipment levels, combat readiness, and combat capability (see below) as well as the quality of commanders and command and control systems (ibid.).

[13] The definitions used in this report are the authors' summarising interpretations of definitions from (i) the website of the Russian Ministry of Defence, (ii) Russia's 2014 Military Doctrine or (iii) a Russian Military Encyclopedia from 1984 (see also footnote 3 above).

The combat capability, *boevaia sposobnost*, of units and formations is their ability to carry out combat operations successfully in accordance with their designation. A unit is combat-capable if it has 75 per cent of its structure ready to wage combat (ibid.). Units on exercise build their combat capability. This strengthens the fighting power of the force to which they belong. This in turn strengthens the national-level military power of the country, especially if exercise activities are systematic. In short, military power is about a country's potential to wage wars. Fighting power is about a force's potential to carry out operations. Here, the focus is on the relevance of strategic and other exercises for the fighting power of Russia's Armed Forces (see chapter 3).

Two key aspects in the Russian notion of fighting power were relevant for the exercises covered in this study: first, the quantity of forces, here called mass, and, second, the quality of the commanders and command and control systems, here called professionalism.[14] Here, "mass" simply refers to the size of an exercise in terms of servicemen and number of pieces of equipment involved. The effect on fighting power of an exercise of course varied depending on what type of forces participated. Using the Ground Forces as an example, this could range from heavy units with main battle tanks (MBTs) and heavy artillery, to medium units, e.g. motor rifle units, and light units such as dismounted airborne forces and Special Purpose Forces.[15] Similar outlines can be given for the Navy and the Air Force. Neither official sources nor the military press systematically published exact figures about how many of each weapon system took part in exercises.

Regarding the second component, military professionalism, exercises enabled commanders to train in how to plan, prepare and command complex combined inter-service and inter-agency operations as well as combined operations with allies. Professionalism also pertains to how far personnel and commanders can train for all-arms combat within their branch or arm of service. Here, the focus is on to what extent exercises created opportunities to train for which type of operations, not how much use the Russian military actually made of the opportunities. Without exercises, a unit's combat capability declines over time. Recurring training opportunities are important, especially for a conscript-based

[14] The Russian concepts have similarities with concepts proposed in the West. The "quantity of forces "and "quality of command" aspects here would then roughly correspond to the concepts "numerical preponderance" and "force employment" put forward by Stephen Biddle in *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton/Oxford: Princeton University Press, 2004), pp. 14–19. The concepts "quality of command" or military professionalism consisting of non-physical elements, such as morale, tactics and training, are based on Martin van Creveld, *Fighting Power: German and U.S. Army Performance, 1939–1945* (Westport, Connecticut: Greenwood Press, 1982). A more detailed comparison is worth a study in itself.

[15] Special Purpose Forces (SPF) here refers to Russia's *Voiska Spetsialnogo Naznacheniia*. They are essentially light infantry with a combat support reconnaissance role and are not to be mistaken for the Special Operations Forces which have a more special direct combat role in small operations of high political significance (Nikolsky, 2014).

manning system. The Russian military probably tries to make the most of the opportunities to exercise.

The framework in this report tries to capture two basic aspects of exercises that are relevant to fighting power. First, mass in terms of the number of servicemen and pieces of equipment in an exercise. Second, professionalism, i.e. how complex the exercise is in terms of arms and branches of service, other agencies and allies involved. Taken together, these two provide the basis on which to discuss the military power of Russia. Unit-level combat capability was difficult to survey systematically in official statements and the military press within the framework of this study. In addition, the report notes where the exercises took place.

The description of exercises and surprise inspections will as far as possible include the following characteristics:

1. Aim
2. Geographical area of operations (AOO)
3. Scope
    a) Mass – stated number of servicemen, vehicles, ships and aircraft
    b) Professionalism with a focus on the level of complexity of command and control
        i. All-arms operations within each service
        ii. Inter-service
        iii. Inter-agency
        iv. Coordination and allies

The fighting power professionalism of a force is built on the combat capability professionalism of subsidiary units and ultimately on the individual level. The assumption here is that professionalism at lower-unit levels is adequate so that these units can be building blocks in the pyramid underpinning the collective fighting power of Russia's Armed Forces. The exercises in focus here, strategic exercises and surprise inspections, were at the top of the exercise pyramid and required many more exercises at lower levels to be viable. As noted by Major General Aleksandr Sanchik, commanding officer of the Taman 2nd Guards Motor Rifle Division in the Western Military District (MD), most training took place at each unit's home exercise area (*Ekho Moskvy*, 2015).

Since reported numbers about the fighting power notion of "mass" were very general for each exercise, the focus here is on describing which arms and branches of service were involved and their activities as a basis for discussing professionalism. In exercises, staffs can always have imagined units alongside the

real ones in the staff work processes to make the staff work more complex. That, however, would not include the practical problems of real participating units. The more units representing different functions that are represented in an exercise, such as infantry getting indirect fire support from artillery, aircraft and helicopters, help crossing rivers from engineers or logistics for endurance, the more complex and realistic the exercise are for commanders and their staffs. Here, the assumption is that this expansion of the command and control dimension in an exercise increases professionalism.

Fairly broadly, the notion "all arms" within a branch of service means that at least three arms of service within the branch in question participated in the exercise or that the Russian term *obshchevoiskovoi* was used to describe the exercise. "Joint inter-service" means that at least two branches participated or that the Russian term *mezhvidovoi* was used of the exercise. For an exercise to qualify as joint inter-agency, at least two agencies have to be involved or the Russian term *mezhvedomstvennyi* is used to describe it. If a force from one of Russia's allies was involved, the exercise qualifies as combined (*sovmestnyi*).[16] The surprise inspections restarted in 2013 seemed to focus only on the armed forces under the Russian MoD in the period studied.[17] Cooperation with other agencies or allies was not part of such exercises and hence is not discussed here.

2.2 Sources

This study used two types of Russian open sources. The first was official sources, i.e. primarily the MoD website, and the second, to a lesser extent, the Russian military press. The MoD website, despite its obvious role of promoting the Armed Force to the Russian public, often published information about exercises. Systematic searches of the website offered a way to get an overview of the strategic exercises of 2011–2014 and the surprise inspections in 2013–2014. Searches on a month-by-month basis using the Russian phrase for surprise inspection generated a manageable amount of articles that then became the basis for further analysis. The target audience of the Russian MoD website articles about exercises was clearly the Russian public. A search on the MoD website for relevant English words on 2 November 2015 produced little: exercise (eight hits), readiness (11) and readiness exercise (four). Searches on the same terms in Russian gave more: exercise (6,089 hits), readiness (2,427) and readiness exercise (534). Conveying what the MoD wanted Russians to know was obviously more important than

[16] The Russian term *sovmestnyi* roughly corresponds to joint, mutual, cooperative or collective. It is generally used to label exercises with allies (combined exercises), but is sometimes used to describe joint inter-service or joint inter-agency operations, which may be confusing. In this report, it refers to exercises with allies.

[17] A surprise inspection for the Collective Operational Reaction Forces of the CSTO took place in May 2015, i.e. after the period studied in this report.

providing information in English, but the possibility of searching the MoD website nevertheless made it a useful source.

The military press included *Krasnaia Zvezda* (Red Star), the daily newspaper of the MoD, the weekly *Voenno-Promyshlenny Kurier* (the Military-Industrial Courier) and *Nezavisimoe Voennoe Obozrenie* (the Independent Military Review). The military press probably had close contacts with the Russian military and most often conveyed the image of the Russian military that MoD officials wanted the primarily Russian readers to have. Journalists from other state news outlets such as RIA Novosti are also probably quite dependent on the Armed Forces for access to information.

During the Serdiukov years, the Russian military press often covered problems such as a lack of housing for service personnel, corruption, and the health of conscripts, as well as outdated equipment and low staffing levels leading to low combat readiness in many units. This focus on problems helped to create an impetus for reform. After Sergei Shoigu took over as defence minister in 2012, the problem-focused reporting gradually receded and mainly positive accounts about the Russian military came to the fore. This trend accelerated after the start of Russia's war against Ukraine. In 2015, the MoD appeared to be addressing the underlying structural problems but they were unlikely to have disappeared completely in just a few years. This report covers the four years 2011–2014, which to some extent enables comparisons between the two years before and the two years after Shoigu became defence minister.

The description of military exercises based on the open sources used here covers the parts of the exercise process that were made visible to outsiders, either through publication or by inviting journalists to visit exercises. There were usually two visible parts of the process. First, the actual field exercise. Recurring references to this as the "active" phase indicated that there were other phases as well. These phases were, however, rarely the topic of news articles or press releases. They probably included an evolving political scenario, increasingly detailed planning starting at the national level, and initial troop movements to concentrate forces in the areas of operation, as well as redeployments back to base afterwards. The second externally visible part was the follow-up seminars open to the press. Discussions tended to be general and rarely enabled an outsider to say how well an exercise actually went. Therefore, this report will deal less with the actual outcome of exercises than with how far they enabled participants to train with complexity and friction being as close to real operations as possible.

The Russian MoD rarely published exact figures about number of each weapon system used in exercises in a systematic fashion. Phrases like "more than", "up to", "approximately" and "at least" or a number accompanied by "pieces of equipment" were common. Did general descriptions like "more than 5,000 pieces of ground forces combat equipment" mean 5,001 or 5,500 or 10,000? Does it include armoured vehicles only or also tanks and trucks? Fighting power based on

5,000 trucks is likely to differ from that based on 5,000 tanks. The aim was probably to make precise quantitative assessments harder. Here, the stated figures are quoted irrespective of preceding words.

The assumption in this report is that the information on the Russian MoD website and in the Russian military press reflected reality. Not to disclose one's true capabilities is an understandable military instinct. There is always a risk that the size and scope of exercises will be inflated in statements in order to give the impression that capabilities are greater than they actually are. Conversely, giving lower numbers could hide the real capabilities. Figures and descriptions could not, however, depart too much from reality without being noted by the Russian military press's main readership: active or former servicemen and defence industry employees, in theory numbering millions. With this in mind, Russian official figures have been taken at face value, despite doubts about their accuracy. Independently verifying the figures produced by the Russian MoD in open sources would have required other sources than the Russian military press and other open sources. Consequently, this report is not an exhaustive quantitative analysis.

In essence, all the information about exercises in this report thus originates from the Russian Armed Forces. In short, this report builds on what the Russian military wants the Russian public and the outside world to know. Unofficial outlets such as social media and blogs are many and may be an alternative source that could enable us to compare, verify or refute the official sources' information. The origin of social media information is, however, less clear than the origin in official sources, and the sheer amount of material available would have been too cumbersome to handle systematically within the framework of this study.

2.3 Period of investigation

The period of investigation in this report is the four years 2011–2014, since they follow on from the previous FOI report about Russian military exercises, which covered the period 2009–2010 (Ekström, 2010). It might have seemed natural to include exercises in 2015 so as to make the report as up to date as possible. However, the year 2015 is still ongoing at the time of writing which makes it difficult to make comparisons between the years.

Russia's war against Ukraine which started in 2014 was a dangerous challenge for regional and global security, but will not be in focus here. Although the Russian government claimed that Russians fighting in Donbas are volunteers, they were often trained soldiers from either standing units or reserves. Combat operations thus consumed fighting power previously built up through exercises. Furthermore, units sent to fight in one place cannot deploy elsewhere at the same time. The discussion here will mention the war when the Russian military has used exercises either as diversions or to facilitate strategic deployments that enabled it to assert dominance over Ukraine.

Although large-scale military exercises are very costly, money seemed to be less of a problem for the Russian Armed Forces in the period studied. The published parts of the Russian defence budget do not state the share spent on exercises,[18] making it hard to say to what extent spending on exercises changed. Russia's military expenditure, however, increased steadily between from 2012, when it was 2.9 per cent of gross domestic product (GDP), to 2014, when it was 3.5 per cent of GDP (Oxenstierna and Olsson, 2015:41). In contrast to the first post-Soviet years when shrinking defence budgets meant less exercise activities, more generous defence budgets make it easier to organise exercises to build the military power of a nation in terms of the fighting power of its forces and the combat capabilities of its units.

2.4 Outline

Chapter 1 provides an overview of Russia's Armed Forces and establishes the importance of exercises for building military capabilities, rather than sending political signals. The second chapter contains a framework of analysis for the report based on Russian military terminology with a focus on the fighting power (boevaia moshch) of a state's armed forces. Chapter 3 describes the two main types of exercises that are relevant in this context: annual strategic exercises and parallel exercises as well as surprise inspections. Chapter 4 chronologically accounts for the relevant exercises in 2011–2014 and identifies some trends, including a major increase in the size of exercises, from up to around 20,000 servicemen and -women in 2011–2012 to around 155,000 in 2014. Finally, chapter 5 offers conclusion and implications including that the exercises studied have clearly increased the fighting power of Russia's Armed Forces and that exercises often covered the transition from peace to war. Russia is preparing its armed forces to fight regional wars with large-scale conventional inter-service combat operations with possible escalation into using nuclear weapons."

[18] See Oxenstierna (2013). Confirmed by correspondence with Professor Julian Cooper, a British expert on Russian defence budgets, 27 March 2015.

3 Types of exercises and their characteristics

Russia's Armed Forces carried out many types of exercises at all levels, from the individual soldier to the president as commander-in-chief, in 2011–2014. Two types of exercise were relevant for the fighting power of Russia's Armed Forces: annual strategic exercises and surprise inspections.

3.1 Waging war: annual strategic exercises and parallel exercises

An annual strategic exercise here denotes the main exercise event in the yearly training cycles for the staffs and units concerned. The actual terms used to describe them varied somewhat: "strategic exercise" in 2011, "strategic staff exercise" in 2012 and 2014, and "combined strategic exercise" in 2013. Planning for these exercises probably started long in advance in order to get the best training outcomes for the participants. Annual strategic exercises had several phases including planning, bringing participating forces to higher readiness, transporting them to the exercise areas, amassing and ranging them for operations, and the final "active" phase, which often meant live-fire exercises. The exercise cycle ended with evaluation phases from which the MoD published carefully selected parts.

The annual strategic exercises were an opportunity to involve the chain of command from the political level down, thousands of servicemen, and several branches and arms of service, as well as forces from other ministries and, at times, allies. Annual strategic exercises rotated between the four MDs and usually covered a strategic direction, i.e. a territory – with air, sea and land dimensions and strategically important objects – that could be used to conduct military operations with groups of forces (Hedenskog and Vendil-Pallin, 2013:18). In other words, one MD went on exercise with reinforcements from other MDs. To put it simply, strategic exercises were about waging war.

Parallel exercises often took place around the time of the annual strategic exercise, often in other parts of Russia or with a different focus. They allowed participating political decision makers and senior officers to train for a more complex scenario than that played out in the strategic exercise only. The annual exercise and the parallel exercise could thus have been two separate operations or two echelons in the same major operation in an overall scenario. For example, the Russo-Belorussian Union Shield (*Shchit Soiuza*) took place in Russia (Astrakhan and Nizhegorod oblasts) at the same time as *Tsentr*-2011 in Central Asia (Khramchikhin, 2011). Exercises taking place one month before or after an annual strategic exercise are here termed parallel exercises. Those noted in this report are

only examples, since there may have been more of them. The assumption here is that they are used to train the highest political and military decision makers in a wider scenario than the annual strategic exercise only.

3.2 Launching war: surprise inspections

As noted above, combat readiness was part of the Russian definition of fighting power. Surprise inspections addressed the Russian Armed Forces' ability to switch from peacetime activities to war. Surprise inspections tested the ability to go to war when the political decision to do so had been made. Surprise inspections, *vnezapnye proverki*, perhaps better described as combat readiness inspection exercises, took place in the Soviet Army until 1991. The Russian Armed Forces reintroduced them in February 2013. Since then they carried them out regularly on a territorial basis (such as an MD) or a functional basis (in an arm or branch of service). For units, surprise inspections were about the readiness to switch from daily routines to combat operations. This included units immediately deploying to perform their designated core role tasks, i.e. the tasks the units were designed to do: for example, infantry units should be able to march, attack and defend etc. with the personnel and equipment at hand. It could also include deployment to designated operational assembly areas.

In this analysis, there are two categories of surprise inspections: major and subsidiary. The former were systemic in nature in that they tried the whole system in a large part of the Armed Forces' organisation (say an MD) and its ability to launch joint inter-service and all-arms operations. Major surprise inspections were thus directly relevant for the fighting power of Russia's Armed Forces. The major surprise inspections, often described with the Russian term *masshtabny*, large-scale, or *krupnomasshtabny*, very large-scale, were as big as annual strategic exercises and probably also required much planning and preparation. Subsidiary surprise inspections tested smaller parts of the system or certain functions, i.e. units from one or a few different branches or independent arms of service. They are a part of this analysis to illustrate how the Armed Forces used them systematically to improve readiness and command and control.

Just as exercises at levels below the annual strategic exercises enabled units to become functioning parts in a strategic-level exercise, subsidiary surprise inspections probably made it easier for lower-level units to participate in major surprise inspections. Recurring comments to the effect that evaluation teams from the General Staff were present at the surprise inspections indicated that a there was a systematic follow-up process. Despite the name, there was likely to be extensive planning and follow-up. This probably reduced the actual element of surprise, especially at senior levels.

It is also unclear to what extent a whole unit with all subunits participated in a surprise inspection. For example, did all three to five manoeuvre brigades and

support units of an all-arms army actually go into the field during a surprise inspection? Many subunits probably got ready in their bases and then received the order to return to daily routines while others actually deployed into the field. Indeed, the MoD described the first surprise inspection in 2013 as putting units from the Central MD on high alert with “a number” [of them] going into the field (MoD, 2013a). Command and control structures could nevertheless exercise most of the complex matter of amassing and deploying a bigger force.

4 Description of exercises in 2011–2014

4.1 Strategic and parallel exercises in 2011[19]

4.1.1 Strategic exercise: *Tsentr*-2011

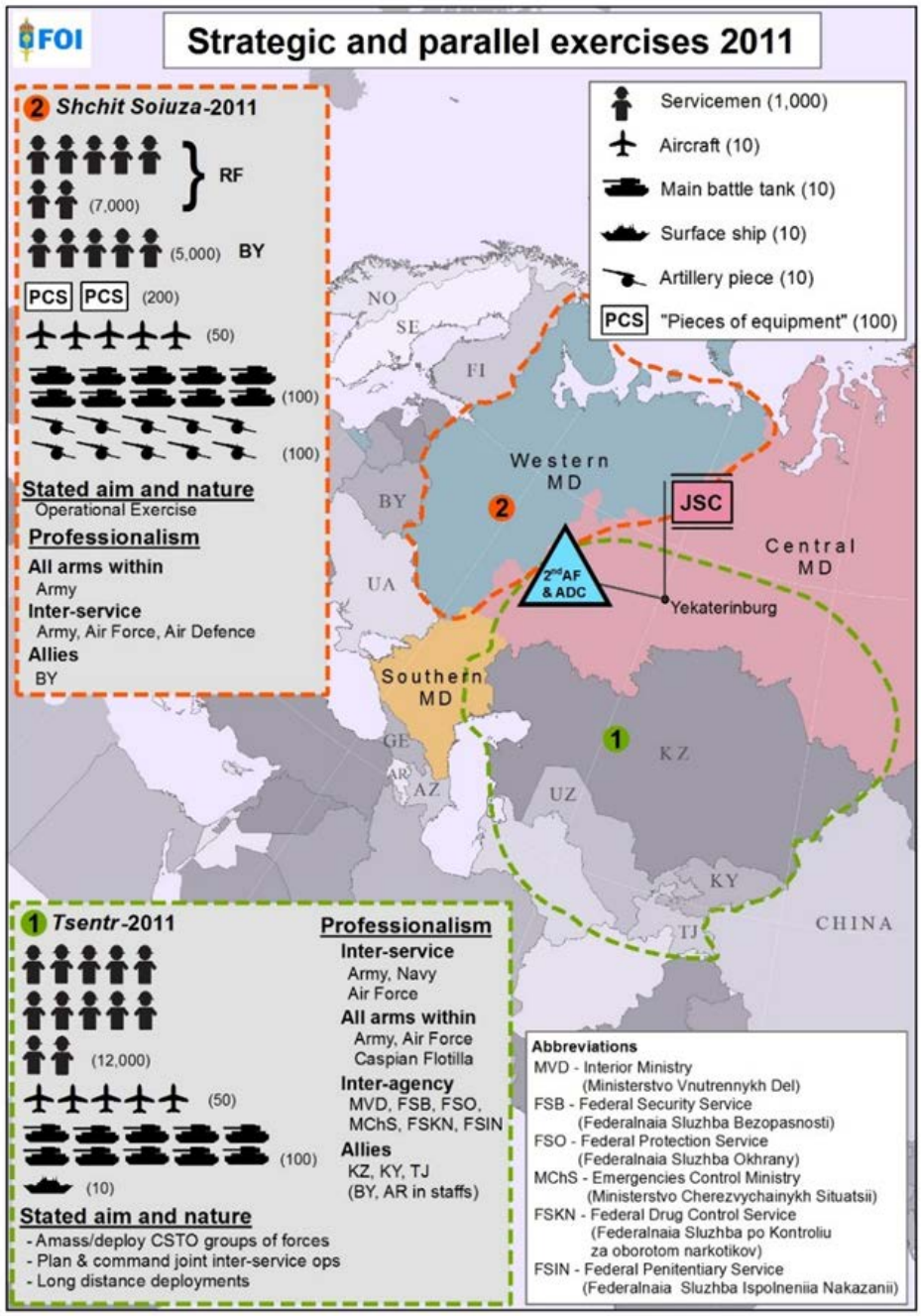
The strategic exercise *Tsentr*-2011 (Centre-2011) took place under the auspices of the Russian General Staff and Russia's Central MD during nine days in September 2011. As illustrated on the map in figure 2, *Tsentr*-2011 took place in exercise areas in central Russia, in the Urals, in the Volga Basin and in Astrakhan Oblast. Two of these were all-arms exercise areas enabling the exercising of big formations and complex operations. *Tsentr*-2011 also took place in exercise areas of Russia's Central Asian allies in the CSTO, primarily in Kazakhstan but also in Kyrgyzstan and Tajikistan and on the Caspian Sea (MoD, 2011a; RIA, 2011a).

The stated aims were to develop ways to generate and deploy CSTO groups of forces[20] (MoD 2011a; RIA 2011a) and to train planning and commanding forces for joint inter-service operations and command and control during a transition phase from peace to war, special operations and long-range deployments (MoD, 2011a; RIA, 2011b). The stated scope and the numbers of servicemen and pieces of equipment probably made this possible.

The scope of the exercise included 12,000 servicemen and "thousands" of pieces of equipment such as MBTs, artillery pieces, air defence and surface-to-surface missiles, some 50 aircraft and 10 ships (MoD, 2011a; Khudoleiev, 2011). A more specific figure, 100 MBTs (RIA, 2011b), i.e. some two or three battalions, indicates that not all tank battalions from the nine motor rifle and the single tank brigades in Russia's Central MD participated. In addition, unspecified "operational groups" from other Russian ministries with armed forces took part: the MVD, the FSB, the Federal Protection Service (Federalnaia Sluzhba Okhrany, FSO), the Emergencies Ministry (Ministerstvo Cherezvychainykh Situatsii, MChS), the Federal Drug Control Service (Federalnaia Sluzhba po Kontroliu za oborotom narkotikov, FSKN) and the Federal Penitentiary Service (Federalnaia Sluzhba Ispolneniia Nakazanii, FSIN) (MoD, 2011a; Kremlin, 2011b). Finally, forces from the above-mentioned CSTO allies as well as staff officers from Belarus and Ukraine participated (Kremlin, 2011b).

[19] See appendix 1 for details and sources.
[20] For different types of CSTO forces see Norberg (2013), pp. 21–26.

Map 2 Strategic and parallel exercises in 2011



Participating CSTO countries had staff officers in the exercise command structure, most probably an existing Russian one. For military professionalism, the participation of all branches of service and forces from other Russian ministries as well as allies made it possible to exercise joint inter-service and joint inter-agency as well as combined operations.

For military professionalism at a unit level, *Tsentr*-2011 included motor rifle, tank, artillery and air defence units, which made it possible to practise command and control for ground forces all-arms operations. In addition, aircraft and ships allowed for joint inter-service training according to the stated aim. Forces from Russia's allies Kazakhstan, Kyrgyzstan and Tajikistan facilitated training towards the aim of amassing and deploying CSTO groups of forces in and to Central Asia. The aim of training for long-distance transport had to do with a permanent Russian military geographical challenge – long distances. Transports reportedly included 60 "railway echelons" and six air echelons for transport (Khudoleiev, 2011). This was probably 60 trains and air transport with an unspecified number of aircraft. Other possible tasks for the 50 participating aircraft were to provide fighter cover for the airlift and support for ground forces. The key transport asset, especially for the ground forces, was trains rather than transport aircraft. The railway gauge is the same in Russia as in Central Asia, which facilitated smooth transport. It was a major long-distance transport operation.

The reporting about problems was frank: the issues were inter-agency communication and coordination in combat operations as well as differences between CSTO allies regarding command and control systems, staff working procedures and manuals, legal bases and equipment (Kremlin, 2011b). At unit level, reports mentioned problems with coordinating air support for ground forces, indirect fire support, the coherence of moving vehicle columns, and map reading (Bondarenko, 2011). It is impossible to say, however, how representative these problems were for all of the participating forces.

Overall, *Tsentr*-2011 enabled the exercising of command and control of all-arms ground forces formations, and joint inter-service and inter-agency operations, as well as combined operations with allies in one strategic direction. From the information used here it is not possible to say how successful it actually was. When visiting, then President Medvedev's assessment was "not bad" (Kremlin, 2011b).

4.1.2 Parallel exercise

Tsentr-2011 was not the only exercise at the time. As the map in figure 2 illustrates, the joint Belorussian-Russian operational exercise *Shchit Soiuza*-2011, Union Shield, took place east of Moscow, in Nizhegorod Oblast, and on the Ashaluk exercise area in Astrakhan Oblast, near the Caspian Sea (Andreev, 2011b). It thus partly overlapped *Tsentr*-2011 in both time (16–19 September) and space (on the Ashaluk range). The MoD called it a part of a tradition of regular major joint

exercises between the two countries. Previous exercises took place in 2006 and 2009 (MoD, 2011b).

The exercise included 7,000 Russian and 5,000 Belorussian servicemen, "200 pcs of equipment", 100 MBTs and 100 armoured infantry fighting vehicles (AIFVs)/armoured personnel carriers (APCs)/artillery pieces as well as 50 aircraft and helicopters (MoD, 2011b).[21] Union Shield's label, "operational", indicates that the aim and scope comprised more than one branch of service. The focus was ground forces operations supported by aircraft and helicopters as well as air defence units with short- and medium- as well as long-range systems. Altogether, this enabled training for command and control for joint inter-service operations with allies in Russia's western strategic direction, underlined by the participation of the commanding officer of the Western MD (MoD, 2011b). Another possible interpretation is that *Shchit Soiuza* was the amassing of a possible second echelon in a wider crisis scenario framing *Tsentr*-2011.

4.1.3 Observations about *Tsentr*-2011 and parallel exercises

For all practical purposes, the Union Shield exercise was roughly equal in size and complexity to *Tsentr*-2011. The key conclusion for 2011 was that Russia carried out two joint inter-service and joint inter-agency exercises with allies in two adjacent strategic directions at the same time. For higher-level military-political decision making, i.e. the General Staff, the ministries concerned and possibly the Kremlin, *Tsentr*-2011 and Union Shield provided an opportunity to train for decision making in a scenario with joint inter-service operations in two separate directions. Another possible interpretation is that the two exercises represent a scenario with two inter-service operations in the same conflict, where one operation could reinforce the other or escalate the conflict. Command and control structures at all levels had the opportunity to exercise the complexity of planning and executing large complex operations.

4.2 Strategic and parallel exercises in 2012[22]

4.2.1 Strategic exercise: *Kavkaz*-2012

The map in figure 3 outlines the annual strategic exercise effort 2012, *Kavkaz* (Caucasus)-2012, which took place in the Southern MD exercise areas as well as in the Black and Caspian seas. The two terms used to describe it, "strategic

[21] Given the lack of detail in the numbers reported, armoured infantry fighting vehicles (AIFVs) and armoured personnel carriers (APCs) are here counted as one category, despite their obvious differences.

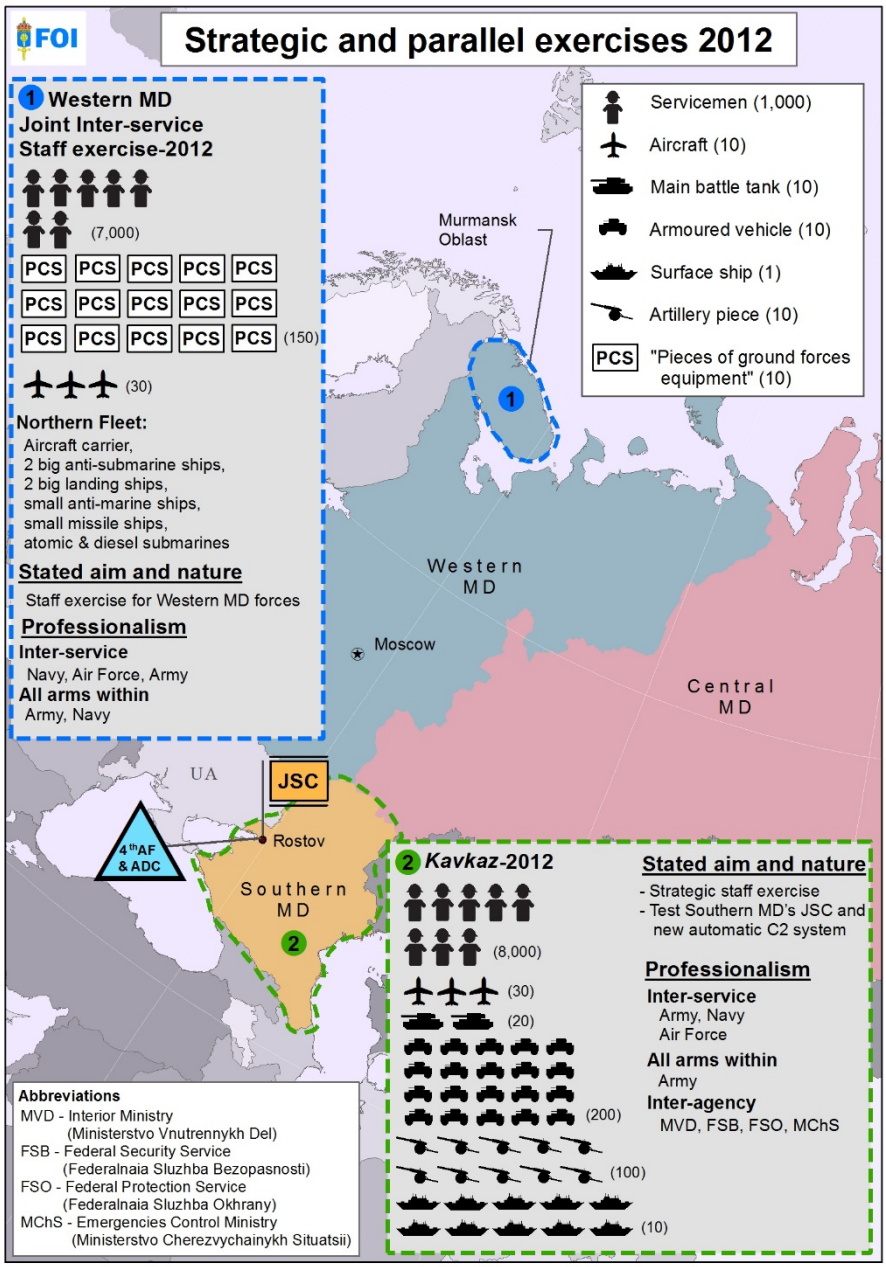
[22] See appendix 2 for details and sources.

command and control exercise", *strategicheskoe komandno-shtabnoe uchenie* (Vladykin, 2012; Krasnaia Zvezda, 2012) and "strategic-operational exercise", *strategichesko-operativnoe uchenie* (Kremlin, 2012b), indicated a focus on command and control for complex operations. The MoD stressed the exercise's training dimension, "the fundamental and concluding phase" in the command and control training cycle, focusing on the quality of command rather than assembling and commanding large formations (MoD, 2012a). An associated aim was to test the coherence of the Joint Strategic Command (JSC) of the Southern MD and of new automated command and control support systems (RIA Novosti, 2012; Kremlin, 2012b).

The stated number of servicemen was 8,000, fewer than in *Tsentr*-2011. The exercise reportedly included 200 APCs/AIFVs, some 20 MBTs, 100 artillery pieces, 30 aircraft and helicopters as well as 10 ships (Vladykin, 2012; MoD 2012a). The reported numbers of both participants and hardware were lower than in *Tsentr*-2011. The low number of MBTs probably reflected the fact that tanks play less of a role in the Southern MD's mountainous terrain than infantry does. The ratio of one artillery piece per two APCs/AIFVs probably indicated that operational planners emphasised massive indirect fire support for mobile armoured combat.

The comparatively modest participation of Air Force and Navy units indicates a focus on land operations. Although in theory allowing staffs and commanders to plan for them, real inter-service operations seem to have been a lower priority during *Kavkaz*-2012 than during *Tsentr*-2011. Consequently, *Kavkaz*-2012 in itself probably made a smaller contribution to the fighting power of Russia's Armed Forces. However, just as in 2011, the well-publicised annual "strategic" exercise *Kavkaz*-2012 was not the only one at the time with relevance for the fighting power of Russia's Armed Forces. The real action took place elsewhere.

Map 3 Strategic and parallel exercises in 2012



4.2.2 Parallel exercises to *Kavkaz*-2012

The map in figure 3 shows the key event in addition to *Kavkaz*-2012. The "joint inter-service staff exercise" took place in the Kola Peninsula region and started as *Kavkaz*-2012 ended. This exercise involved the Northern Fleet, the First Air Force and Air Defence Command (1. AFADC) and a motor rifle brigade (MRB). The exercises included 7,000 servicemen, 20 ships and submarines, 30 aircraft and more than 150 pieces of ground forces combat equipment (Vladykin, 2012), i.e. MBTs, APCs/AIFVs and artillery pieces, roughly corresponding to the above-mentioned brigade. The ambitious naval component of the exercise included cruisers, anti-submarine ships, minesweepers, small missile ships and landing ships as well as nuclear and diesel submarines (ibid.).

The Northern Fleet probably commanded the joint inter-service formations in the exercises for two reasons. First, it is likely to have the best command and control systems in the region. Second, it makes sense that the all-arms brigade, most probably the 200th Independent Motor Rifle Brigade near the border with Norway, was not under the command of either of the two western MDs' all-arms armies or the Joint Strategic Command of the Western MD in St. Petersburg, all of which are far away. It may also have been a way to test what in December 2014 became the Joint Strategic Command North (MoD, 2014ao).

To conclude, the scope of the exercise in the Western MD enabled training in command and control of all-arms operations in the Ground Forces and the Navy and, to some extent, the Air Force. It certainly enabled training for assembling, setting up, deploying and commanding joint inter-service formations. There was little information about the exercise scenario. Two things indicated that this exercise and *Kavkaz*-2012 were probably parts of a wider scenario for higher national levels of military and political decision making. First, the timing – just after *Kavkaz*-2012 – seems to connect the two exercises. Second, the scope of the Western MD exercise suggests the use of and protecting nuclear weapons, in this case the Northern Fleet's strategic nuclear missile submarines. The Kola exercise included deploying nuclear submarines and their air, surface and underwater cover to sea. The actions on land, the all-arms brigade and a landing of marines, may well have been for ground defence of the Navy basing areas.

The overall scenario could possibly have been a conflict on Russia's southern border that led to a confrontation with outside powers escalating into a conflict where Russia wanted to use nuclear weapons. The real scenario was not published. The two exercises, however, made it possible to exercise both high-level political and military decision making and the actions of Russia's armed forces for such a scenario.

4.2.3 Observations about *Kavkaz*-2012 and parallel exercises

Just as in 2011, Russia carried out two major exercises simultaneously in adjacent strategic directions, training for joint inter-service operations in each of them.

Higher military-political decision makers could thus rehearse managing a two-front war operation or an operation with two major joint inter-service echelons enabling escalation. Command and control structures at all levels had the opportunity to exercise the complexity of planning and executing large complex operations.

4.3 Strategic and parallel exercises in 2013[23]

4.3.1 Strategic exercise: *Zapad*-2013

In 2013, the Russian-Belorussian combined strategic exercise (*sovmestnoe strategicheskoe uchenie*) *Zapad*-2013 (MoD, 2013ab) took place on 20–26 September and was the key annual training event for the Russian Armed Forces. It was the well prepared and rehearsed final phase of a six-month-long training cycle that had included some 150 subsidiary exercises in units, formations and command structures (Tikhonov, 2013b) as well as 10 prior joint Russian-Belorussian staff training measures (Tikhonov, 2013c). The commander in chief, President Putin, noted at the end of the exercise that it had covered the transition from peace to war (Tikhonov, 2013a). The CGS echoed this later and added that the exercise was large-scale (Tikhonov, 2013c). The aim was to improve inter-operability of staffs, test advanced command and control systems, and test new service regulations, as well as train staffs in planning and commanding operations (Järvenpää, 2014:4–5).

As the map in figure 4 shows, the exercise took place in Russia's western strategic direction with some final episodes playing out in exercise areas in Belarus and Kaliningrad. It included some 9,400 Russian servicemen on Russian territory and 2,520 in Belarus. As for equipment, some 180 pieces of combat equipment (of which 10 were MBTs), 40 aircraft and 10 ships (MoD, 2013ab) were involved. *Krasnaia Zvezda* described the exercise as a "combat readiness inspection exercise focusing on operational training" (Tikhonov, 2013a), i.e. more than a tactical exercise, and one that was more difficult since it took place in "unknown terrain" (Tikhonov, 2013c), presumably for most units. Dr Pauli Järvenpää claims that 70,000–90,000 servicemen actually took part. The official numbers seem low given that it was a strategic joint inter-service exercise in many areas in the Western MD (Järvenpää, 2014:8).

Like other annual strategic exercises, *Zapad*-2013 included coordination with armed forces from other ministries than the MoD. Dr Järvenpää's numbers seem realistic especially if the participation of forces from other ministries is included, for example, some 20,000 servicemen from the Interior Troops that also carried

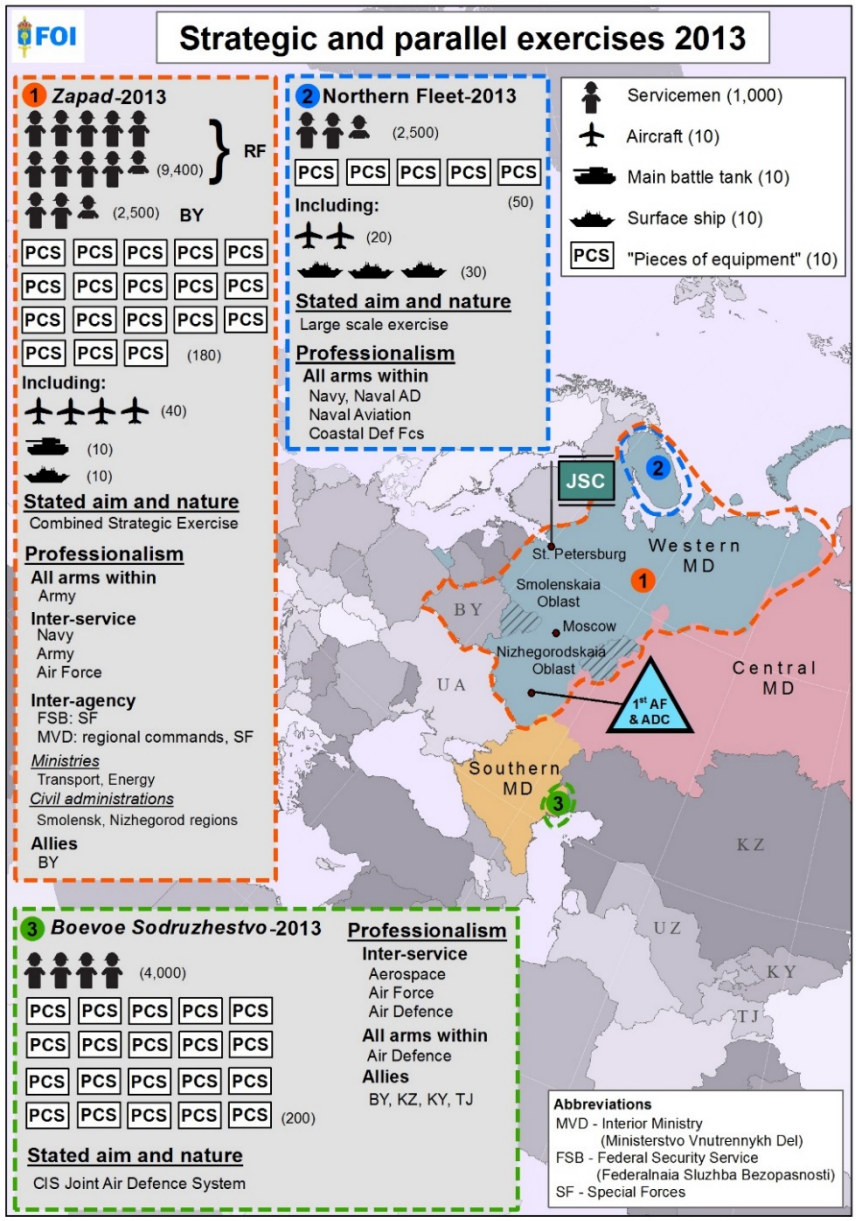
[23] See appendix 3 for details and sources.

out a nominally separate mobilisation exercise involving an additional 25,000 servicemen (ibid.). In that case, half of the participants were from the MVD. This could reflect their role in territorial defence but also, in theory, their potential as an occupying force following advancing regular forces. Special Forces units from the MVD and the FSB border guards took part in the final military manoeuvres in Kaliningrad (Tikhonov, 2013a). The MVD's key role was indeed territorial defence (Falaleev, 2013) including involving regional MVD commands, putting MVD forces in the Volga region on higher readiness and mobilising MVD reserves (Tikhonov, 2013b).

There was also a big element of civil-military cooperation. In 2013, the Russian government had re-launched work on a comprehensive national defence plan (*plan oborony*), covering inter alia the wartime responsibilities of some 50 ministries and government agencies (Persson 2013:73). *Zapad*-2013 was a major effort reflecting the ambition to coordinate the state's collective resources for a war effort such as official statements about the Defence Plan indicate. The military press noted that civil-military cooperation was important and that participating civilian agencies included the Ministry of Transport and the Federal Air Transport Agency, Rosaviatsii, the Federal Sea and River Transport Authority, and state companies such as Russian Railways and others in the transport sector (Tikhonov, 2013b). Two regional governments participated: Smolensk, south-west of Moscow, and Nizhegorod, east of Moscow. The latter adopted wartime routines during the exercise (Tikhonov, 2013b). The first deputy defence minister, Army General Arkadii Bakhin, led the MoD's operational group to the Nizhegorod region to work on civil-military cooperation concerning mobilisation as well as civil and territorial defence. The aim was to identify problems and improve current regulations (MoD, 2013ae). That such a senior person led this work indicates the importance of civil-military cooperation in the light of mobilising resources for war.

Civil-military cooperation in *Zapad*-2013 seemed to evolve around two issues: first, strategic mobility in terms of transportation assets and routes and, second, mobilisation, both of personnel and of societal resources generally. Units were deployed from central Russia westwards (Tikhonov, 2013b) using railway, river and road transports as well as civil aviation. Experience from the exercise indicated that the existing plans needed to be overhauled (ibid.). The exercise indicated that fuel supplies to forces could be a problem. This pointed to a need to contract civilian suppliers and private companies to create reserves (ibid.).

Map 4 Strategic and parallel exercises in 2013



Strategic mobility was obviously a key aspect of *Zapad*-2013 with civilian transport assets playing a key role. The exercise uncovered some problems in mobilising all of society's resources. For example, how would Soviet approaches to the mobilisation of industry and the population work with much of industry in private hands? How should private oil companies deliver fuel to the Armed Forces? Few had dealt with these issues for 20 years (Litovkin, 2013). The map in figure 4 shows the location of the participating regional administrations. Their location indicated that transporting echelons of military formations and units from Central Russia through their territories was probably a key part of a planned war effort westwards.

As in 2011 and 2012, the strategic exercise in 2013 was only a part of wider exercise activities in Russia in the late summer–early autumn.

4.3.2 Parallel exercises to *Zapad*-2013

As the map in figure 4 also shows, the Commonwealth of Independent States (CIS) held an air defence exercise, *Boevoe Sodruzhestvo* (Combat Commonwealth). It started on 13 August and ended on 12 September, about a week before *Zapad*-2013 started. It comprised 4,000 servicemen from air defence units from all CIS states and had three phases: preparation in home bases, deployment to the Ashaluk firing range in Russia's Astrakhan region, and, finally, in parallel with some staff work performed at the Sary-Shagan exercise area in Kazakhstan, live-fire exercises with S-400, S-300 and Pantsir air defence systems (MoD, 2013aa). The timing indicates that this exercise was probably not a part of *Zapad* in a practical sense, but could well have played a role in a possible wider scenario around *Zapad*-2013.

The 600 servicemen-strong CSTO exercise *Vzaimodeistvie*-2013 took place on 20–25 September and thus overlapped with *Zapad*-2013. The aim was to train, assess and develop the CSTO's Collective Operational Reaction Forces (CORF) and Regional Group of Forces (RGF) in Eastern Europe (CSTO, 2013a). The CORF was a multilateral formation built around Russia's 98th Airborne Division with Kazakhstan and Belarus as significant contributors. This CSTO RGF was a Russo-Belorussian endeavour (Norberg 2013:22–23). This exercise added a political dimension to *Zapad*-2013. Adding the CSTO's multilateral structures to at least parts of *Zapad*-2013 enabled training in military-political decision making with allies. The Collective Security Council, the decision-making body of the CSTO heads of state, and defence and foreign ministers met in Sochi during the exercise (CSTO 2013b; CSTO 2013c). The CORF and the RGF nominally had thousands of servicemen (Norberg 2013:22). The stated size of *Vzaimodeistvie*, 600, indicated a focus on training for command and control rather than actual operations of these units.

Probably the most important parallel activity alongside *Zapad*-2013 was an exercise for the Northern Fleet's naval and coastal defence formations which

started on 21 September. As the map in figure 4 outlines, it included 2,500 servicemen, some 30 ships, 50 pieces of equipment, some 20 aircraft and helicopters, as well as Russia's only aircraft carrier, *Admiral Kuznetsov* (Krasnaia Zvezda, 2013). It is unclear how many ships went to sea. The exercise included air defence with naval aviation and missile units, coastal defence and anti-submarine ships, minesweepers and missile ships (RIA, 2013). Altogether, this enabled staffs to exercise command and control in an all-arms coastal defence and naval operation. The Northern Fleet included most of the Navy's nuclear missile submarines, vital to Russia's nuclear second-strike capability. The actual scope of *Zapad*-2013 was to exercise a major joint inter-service and inter-agency operation in a confrontation in Russia's western strategic direction. Activating the Northern Fleet during *Zapad*-2013 probably reflected an overall scenario whereby Russia was preparing for an escalation with nuclear weapons.

4.3.3 Observations about *Zapad*-2013 and parallel exercises

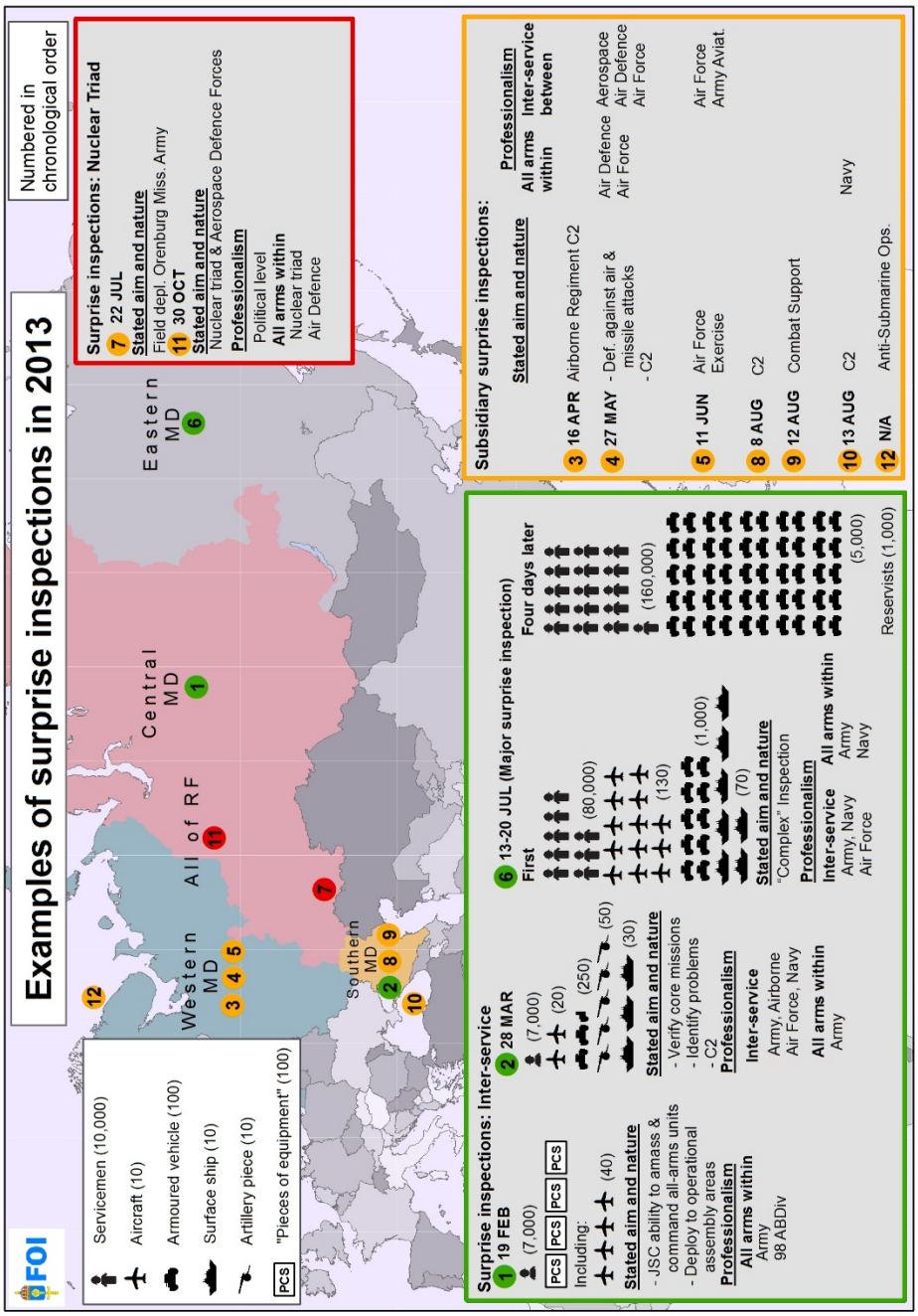
In contrast to the two preceding years there were no exercises in parallel to the annual strategic exercise that were equal in size. Instead, the increasing element of inter-agency coordination and civil-military cooperation in the annual strategic exercise suggested a focus on mobilising both military and other resources for a wider war effort. This was hardly about preparing for a small conflict on Russia's southern fringes, which the Russian military should be able to handle on its own. The scope of *Zapad*-2013 and the simultaneous Northern Fleet exercise indicated that they were about a regional war with NATO, including a possible escalation into using the Northern Fleets nuclear weapons. In addition to the increased complexity that the *Zapad* exercise provided, the Russian Armed Forces got more training opportunities by virtue of a novel old type of exercises in 2013.

4.4 Surprise inspections in 2013[24]

In 2013, not having carried them out since Soviet times, the Russian MoD reintroduced surprise inspections on a wider and systemic scale to check the actual combat readiness of its forces. Defence Minister Shoigu said that they would become a regular training feature for the Armed Forces (MoD, 2013a). As the map in figure 5 shows, this study identified 12 surprise inspection in 2013 with relevance for the fighting power of the Armed Forces. The criterion for selection used here was that the inspection was of a certain size or it covered key functions. This list is not exhaustive and more surprise inspections probably took place. After the outline of surprise inspections in 2013 below some summarising observations will follow.

[24] See appendix 4 for details and sources.

Map 5 Examples of surprise inspections in 2013



The first surprise inspection began on 19 February and took place in the Central MD. The aim was to test the ability of the Central MD's JSC[25] to amass, coordinate and command all-arms formations and deploy them to designated operational assembly areas. The exercise involved 7,000 servicemen "in practical measures", a few hundred vehicles and some 40 aircraft and helicopters (MoD, 2013a). The 98th Airborne Division was involved and acted in coordination with ground force units from the Central MD (MoD, 2013c). As for fighting power, the number 7,000 indicates that this probably amounted to not more than a brigade-size unit with support. It enabled units from two branches of service to exercise.

The second surprise inspection started on 28 March in the Southern MD and also included 7,000 servicemen "in practical measures". The aim was to verify various forces' ability to carry out their core role tasks. For the Ground Forces, it included motor rifle, reconnaissance, signals and combat support units with some 250 armoured vehicles and 50 artillery pieces. The Air Force exercised 20 helicopters, fighter and transport aircraft, and the Navy some 30 surface and support ships. As for command and control, the inspection included the MD, all-arms army and brigade levels (MoD, 2013b). Soldiers from the 7th Air Assault and 106th Airborne divisions also participated (MoD, 2014c). Altogether, this was hardly more than the equivalent of a reinforced brigade-size unit. It enabled a check on command and control involving three branches of service. The MoD called the exercise "large-scale" (MoD, 2013b). This implies that it enabled a check on command and control and coordination on a wider scale, probably covering the whole MD. The third surprise inspection was relatively small, involving 500 servicemen and 30 armoured vehicles from the 76th Air Assault Division in Pskov, but was important since it concerned command and control in the airborne forces, Russia's key rapid response force. After the MoD and the General Staff had used these three first surprise inspections to check the ability to start operations quickly in Central Asia and the Caucasus, other parts of the Armed Forces were next in line.

Surprise inspections four and five took place in Russia's Western strategic direction and focused on air and space defence. The fourth inspection aimed to check defences against air and missile attacks. It included units from Russia's Military Transport Aviation, Long Range Aviation, Aerospace Defence Forces and the Western MD's Air Force and Air Defence Forces. Training in command and control from mobile command posts was part of the exercise (MoD, 2014d). The fifth surprise inspection had a tactical focus and included several arms of service in the Air Force. It included 20 aircraft, Su-24 fighter-bombers and Su-27 fighters, and Mi-8 and Mi-24 helicopters from the Army Aviation. Key elements included regrouping from ordinary to reserve airfields, evacuating reconnaissance units and tactical airborne helicopter landings (MoD, 2014e). The small number

[25] Put simply, the MD generates forces, but does not command them in operations. The MD's JSC commands operations with its MD's forces as well as with reinforcements from other MDs.

of aircraft and helicopters indicates that training in command and control as well as verifying deployment capabilities was in focus.

The sixth surprise inspection was the biggest in 2013. It took place on 13–20 July in Russia's far east and involved units from the Central and Eastern MDs. The Russian MoD website referred to it as *masshtabny,* roughly meaning sizeable, but its figures about the size of the exercise varied. The initial numbers stated were 80,000 servicemen, 1,000 tanks/armoured vehicles, 130 aircraft and helicopters and 70 ships (MoD, 2013f). After four days, they were 160,000 servicemen (up 100 per cent) and 5,000 tanks/armoured vehicles (up 400 per cent). The number of aircraft and ships remained the same (MoD, 2013g). After one week the defence minister added the number 13,000 "units of ground equipment", probably referring to anything on wheels and tracks in the two MDs. Interestingly for a surprise inspection, 1,000 reservists were mobilised, equipped and sent to the exercise areas (MoD, 2013i), probably to check the viability of the mobilisation system. Relying on reservists in planning operations was reasonable in the vast Eastern MD.

The stated aim was to check the readiness of the units concerned to carry out their core role tasks, the skills of servicemen, and whether units had enough equipment and how well it worked (MoD, 2013f). As for professionalism, this surprise inspection allowed for training in command and control of launching and commanding joint inter-service operations as well as all-arms operations for the Ground Forces, the Air Force and the Navy respectively. Three Ground Forces all-arms armies, the 29th and 36th from the Eastern MD and the 41st from the Central MD, were involved. The exercise included river crossings and an airborne landing of units from the Eastern MD's 11th Air Assault brigade (MoD, 2013g). The participation of all-arms armies and their HQs enabled training of ground forces all-arms operations. Chemical, biological, radiological and nuclear (CBRN) sanitation units from the Eastern and Central MD took part (ibid.). Transports were a key element with operational redeployments by rail, sea and air at distances of up to 3,000 kilometres (km) (MoD, 2013f).

The Russian Pacific Fleet exercised a group of forces with surface ships including one missile cruiser, two big anti-submarine ships, two landing ships, one destroyer, some small missile and anti-submarine ships, submarines, naval aviation, coastal defence forces, naval infantry, and rescue and supply units. The naval group's 50 exercise phases included anti-submarine operations with ships and aircraft, live-fire exercises against air and sea targets and naval infantry landings on Sakhalin and on Kamchatka (MoD, 2013h; MoD, 2013i). Little detail was given about the Air Force's role in the exercise. Some 130 aircraft and helicopters from the Army Aviation, Long Range Aviation and the Military Transport Aviation took part as well as fighter and attack aircraft (MoD, 2013g). Both the Navy and the Air Force were thus able to train for all-arms operations.

A week later Defence Minister Shiogu reported to the commander-in-chief, President Putin, about the lessons learned. Shoigu noted that the exercise had been

successful, but mentioned three problems. First, gunners in tanks and armoured vehicles had received too little live ammunition and consequently firing skills were substandard. Second, there were too few airfields in the east given the need to deploy huge numbers of aircraft from other parts of Russia. Third, the defence minister stressed the need to check which positions required contract soldiers only (MoD, 2014i). This indicated that one-year conscripts probably had problems with sophisticated equipment. This was the only surprise inspection in 2013 that qualifies as major, i.e. testing a whole MD. There were no direct references to nuclear weapons for this particular exercise. That came just days later.

On 22 July, the seventh surprise inspection started (RIA56, 2013). It concerned the Strategic Missile Forces' unit in Orenburg in the Central MD and involved some 2,500 servicemen and, interestingly, civilian personnel, as well as some 350 vehicles deployed in the field (MoD, 2013j). This inspection started immediately after the above-mentioned major surprise inspection in the Eastern and Central MDs, making it possible to exercise an escalation from conventional armed conflict to nuclear.

After Air Force- and Air Defence-oriented surprise inspections in the Western MD and a large-scale surprise inspection in the Eastern and Central MDs, in August, the commanding officer (CO) of the Southern MD ordered three surprise inspections for his units (MoD, 2013l), i.e. the eighth, ninth and tenth in 2013. They took place on 8–15 August and covered Ground Forces, combat support and Navy command and control. The first of these surprise inspections, the eighth in 2013, involved 600 servicemen and 110 pieces of equipment. It included a 200-km transport to unknown terrain and live-fire exercises. The focus of the exercise was command and control as well as communications between different arms of service, presumably in the Ground Forces (MoD, 2013k). The numbers indicated that the exercised unit was roughly a battalion.

The ninth surprise inspection included 170 servicemen and 50 pieces of special equipment from the Pipeline Building Troops. In 24 hours, they built a 20-km-long pipeline with eight pumping stations, which enabled them to pump 3,000 tonnes of fluids (MoD, 2013l). This function is important for fighting power since it facilitates the supply of large quantities of fuel and lubricants, which large armoured ground forces formations require to be able to conduct operations with high mobility. The MoD described the tenth surprise inspection as focusing on naval command and control structures, including deploying them from ordinary offices to field command posts. Few details were given, but apparently anti-submarine, landing, naval infantry, naval aviation and supply units were involved (MoD, 2013m), which enabled the command and control structures to train for all-arms naval operations.

The eleventh surprise inspection started on 30 October and involved the involved air, sea-, and land-based nuclear weapons forces as well as the Aerospace Defence Forces. The president commanded the exercise. The Strategic Missile Forces

launched two intercontinental missiles (MoD, 2013n; MoD 2013p). Nuclear missile submarines from the Northern and Pacific fleets launched ballistic missiles from underwater positions. The quality and integrity of the command and control process, including communications from the Armed Forces Central Command Post to field-deployed units in the nuclear triad, were a key part of this exercise. Little detail was provided about the Long Range Aviation's participation (MoD, 2013o). One report noted that transfer of authority over a unit from a missile brigade in the Central MD to the Southern MD was part of the exercise (Pinchuk, 2013). The Aerospace Defence Forces carried out live-fire exercises with S-400 and S-300 air defence missiles as well as with short-range systems, hitting 15 air targets at different altitudes and speeds (MoD, 2013p). In short, this was about the ability to handle a missile attack on Russia and to strike back with nuclear weapons. The twelfth surprise inspection, which began on 13 November, concerned anti-submarine operations in the Northern Fleet and involved small anti-submarine ships and naval aviation anti-submarine aircraft (MoD, 2013q). Arguably, it had an indirect link to the previous surprise inspection since it was about protecting a key naval component of Russia's nuclear triad, the Northern Fleet's nuclear missile submarines.

4.4.1 Observations about surprise inspections in 2013

What do the surprise inspections in 2013 mean for the fighting power of Russia's armed forces? The Russian Armed Forces carried out surprise inspections in all branches of service as well as in all military districts, albeit not in all units. The one major surprise inspection (the sixth) covered the Eastern MD and enabled the JSC to train for launching major operations. All three branches of service were able to practise joint inter-service operations together and all-arms operations within each service. This tested Russia's overall ability to go to war, in this case in its eastern land and sea territories. The other 11 surprise inspections were subsidiary and focused on the functional roles of branches and arms of service. Two surprise inspections concerned Russia's nuclear forces: one tested the nuclear triad (the seventh), the other (the eleventh) was probably a nuclear "appendix" to the major surprise inspection.

The Ground Forces faced four surprise inspections in all but the Western MD (numbers 1, 2, 6, 8). The Airborne Forces as an independent arm of service took part in the first three. The Eastern MD's independent airborne brigades took part in the only major surprise inspection. The Air Force was in focus in the Western MD (the fifth inspection) and had a supporting role in surprise inspections for the Ground Forces. The Air Defence Forces' and Aerospace Defence Forces' surprise inspection (the fourth) took place in the Western MD. This probably reflects a priority to protect Moscow and the surrounding industrial regions from an adversary with capable air power, i.e. NATO. The Navy's main surprise inspection was the major one in the Eastern MD, which probably included most naval arms

of service in Russia's Pacific Fleet. The Navy had two surprise inspections. One (the tenth) affected the Black Sea Fleet, but the command and control focus was probably part of a wider effort focusing on the entire Southern MD. The other (the twelfth) covered a particular function, anti-submarine warfare, in the Northern Fleet.

Command and control is a key function when launching operations. Unsurprisingly, MoD reporting about half the surprise inspections in 2013 explicitly raised this. Surprise inspections clearly enabled the Russian command structures to improve. There was a pause in surprise inspections in August–October, the reason for this being simply that the *Zapad*-2013 strategic exercise in western Russia took place in September. The surprise inspections did not seem to have a direct link to the annual strategic exercise.

In sum, the training cycle preceding the joint strategic exercise *Zapad*-2013, the exercise as such, as well as one major and 11 subsidiary surprise inspections, gave the Russian Armed Forces many opportunities to improve their fighting power. The surprise inspections added complexity compared to 2011–2012, especially for command and control structures.

4.5 Strategic and parallel exercises in 2014[26]

4.5.1 Strategic exercise: *Vostok*-2014

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: along Russia's pacific coast, on the Kamchatka Peninsula, on Sakhalin, in the Chukotka and Primorie regions and at sea outside Primorskii Raion (MoD, 2014aa; 2014al; 2014an), as illustrated on the map in figure 6. It was the final phase of the annual cycle of staff training and combat readiness inspection exercises for all levels in the command structures concerned (MoD, 2014aa), a training cycle with a wider scope than in previous years since it covered both regular exercises and surprise inspections. The Russian MoD had three aims, namely to check: first, the de facto combat readiness of first-tier forces,[27] second, the infrastructure for deploying forces to distant regions, and, third, the effectiveness of command and control systems for joint groups of forces, especially the naval component (MoD, 2014an). The MoD said little about the

[26] See appendix 5 for details and sources.

[27] The Russian term is "*sily pervoocherednogo primeneniia*", roughly meaning "first-use forces". The interpretation here is that this pertains to earmarked forces with high readiness in terms of manning, equipment, training levels and unit cohesion and probably the first to deploy in the event of armed conflict. Obviously, this cannot be all forces in the Eastern MD, but may simply refer to the first echelon in operational plans.

exercise scenario, but the active phase was apparently about limiting the geographical spread of an armed conflict (MoD, 2014an).

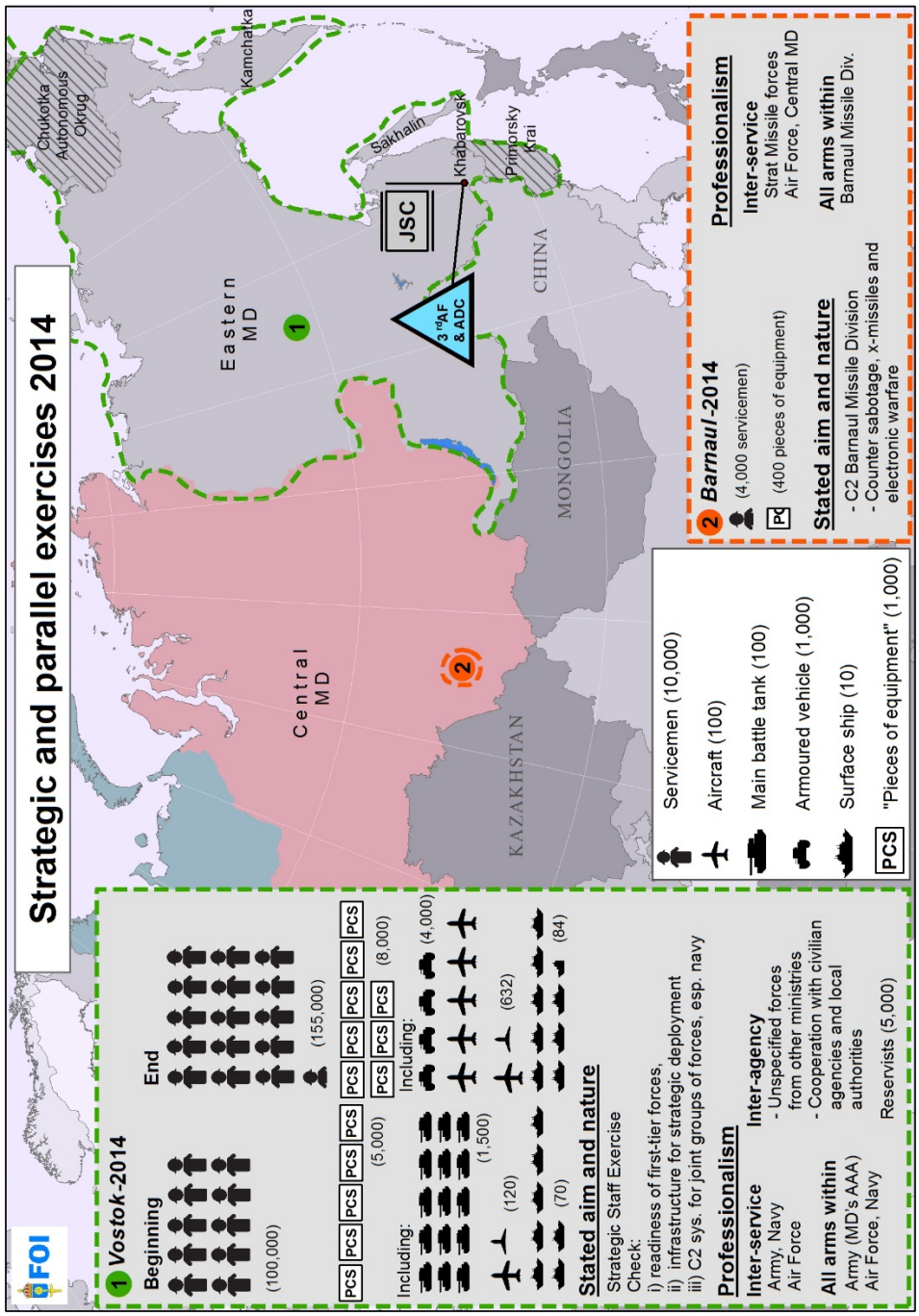
Just as for the above-mentioned major surprise inspection exercise in the Far East in 2013, the Russian MoD website has varying figures about the size of *Vostok*-2014. Figure 6 illustrates how the exercise seemed to grow over time. Initially, the MoD said it included 100,000 servicemen, 1,500 main battle tanks, 120 aircraft, 5,000 pieces of equipment and some 70 ships (MoD, 2014aa). At the end of the exercise, the figures had changed: 155,000 servicemen (+55 per cent); 8,000 pieces of equipment (+60 per cent); 4,000 armoured vehicles, 632 aircraft (+426 per cent) and 84 ships (+20 per cent) (MoD, 2014al). In addition, the stated quantification of strategic transport, the distance covered by units changed from 6,000 km (MoD, 2014aa) to 5,000–12,000 km (MoD, 2014an). In addition, 35,000 litres of bottled water and 30,000 individual combat food rations were used in the exercise (Vladykin, 2014), which may indicate how many soldiers went into the field beyond the reach of the regular supply processes.

One explanation for the diverging figures could be that they refer to all units *concerned* by the surprise inspection. Some received the order to get ready to move but did not necessarily deploy to unknown terrain far away for live-fire exercises. For command and control as well as staff training purposes, a simulation of their participation was probably sufficient. Another possible explanation is that the lower initial figure, 100,000, referred to the surprise inspection leading up to *Vostok*-2014. In any case, it was a large number.

The number of reservists in *Vostok*-2014 was the largest for the exercises studied here. On 27 June 2014, the president signed a decree enabling the MoD and other ministries with armed forces to call up reservists for up to two months (Kremlin, 2014). Some 5,000–6,000 reservists were called up for *Vostok*-2014, to signal, artillery, naval infantry and rocket units or specialists in motor rifle, engineering, rear services and bridge-pontoon units. Russian operations in Donbas at that time may have been one reason for calling up so many reserves, and testing and expanding the reserves system may have been another. For *Vostok*-2010, 300 reservists were called up (Alikin, 2014; RIA, 2014b).

The Eastern MD is vast and the exercise had several operational directions. Transports were therefore a natural key exercise component. *Vostok*-2014 included strategic transports 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 (MoD, 2014ab; MoD, 2014an). An important asset in the transport infrastructure was the Eastern MD's Railway Troops brigade, which supported mobility by building a 500-metre-long bridge across a river that could carry vehicles on both tracks and wheels (MoD, 2014ah). As with *Zapad*-2013, there were elements of civil-military coordination in the exercise (MoD, 2014an).

Map 6 Strategic and parallel exercises in 2014



Ground Forces

Vostok-2014 enabled each branch of service to practise all-arms operations in terms of having three or more arms of service involved. The Ground Forces had motor rifle, tank, artillery and air defence units involved. Units from the all four MDs (MoD, 2014an; Mukhin, 2014) participated together with all the Eastern MD's four all-arms armies (5th, 29th, 35th, 36th) involved (Tikhonov, 2014a). Iskander surface-to-surface missiles were launched (MoD, 2014ab). Some 3,000 servicemen, probably from the Airborne Forces, and 60 pieces of equipment were airlifted by the Military Transport Aviation into the exercise (MoD, 2014an; MoD, 2014al). The Military Transport Aviation also airlifted an unknown number of servicemen from Western MD tank and motor rifle units without their vehicles and equipment (VPK, 2014; MoD 2014ab), presumably to use pre-stored equipment in one of eight brigade equipment stores in the Eastern MD (Hedenskog and Vendil-Pallin 2013:52) and then proceed to unit combat training. This also enabled the staffs in these units to train for this particular deployment process.

Air Force and Air Defence

In addition to the Military Transport Aviation, already mentioned, the Air Force exercised other functions. Most types of military aircraft took part in the exercise: 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 (MoD, 2014, am). Tu-95MS and Tu-22M3 aircraft from the Long Range Aviation carried out stand-off attacks including with cruise missiles (MoD, 2014al). Airborne surveillance and command and control aircraft (A-50s) supported heavy MiG-31 fighters covering naval units at sea (MoD, 2014ae). Il-78 aircraft performed mid-air refuelling (MoD, 2014al). Furthermore, both attack helicopters and ground attack aircraft and bombers supported ground forces, further supported by fighter aircraft (MoD, 2014al; MoD, 2014am). Ground attack aircraft practised landing on highways and taking off again after being serviced (MoD, 2014aj). The Air Force also exercised long-distance mobility, moving some 30 aircraft and helicopters from the Baikal region to the Pacific coast (MoD, 2014ak), with distances varying from 900 to 7,000 km for aircraft and 500 km for helicopters (MoD, 2014am). Coastal defence forces exercised with the S-300 surface-to-air missiles (MoD, 2014ai), presumably coordinated with the Air Force's air defence efforts.

Navy

The Russian Pacific Fleet exercised surface, underwater, air defence, coastal defence, naval infantry and support units. Navy exercise episodes included escorting ships and live fire against targets on land, at sea and in the air (Tikhonov, 2014a). The 3,000 servicemen-strong exercise for the coastal defence troops included 30 ships and 50 pieces of equipment, 20 aircraft and helicopters involved in landing forces in unprepared areas, reconnaissance and engineering work as well as defending coastal areas against enemy landing operations (MoD, 2014af).

Some 30 anti-submarine ships and minesweepers in cooperation with anti-submarine aircraft and helicopters exercised finding and destroying enemy submarines, including live fire with anti-submarine and anti-ship missiles as well as cruise missiles (MoD, 2014ad; MoD, 2014ai). Four nuclear submarines exercised supporting forces on land and at sea in operations to defend coastal zones in four different regions (MoD, 2014ag).

4.5.2 Observations about Vostok-2014

The MoD acknowledged that *Vostok*-2014 had underlined some problems. First, the remoteness and vast distances in Russia's Eastern MD meant that there was a need to store more equipment and supplies in the region and to develop infrastructure. Second, air defences had to be strengthened and, finally, the training system for called-up reservists had to be adapted (MoD, 2014an), indicating that reservists may have underperformed. *Vostok*-2014 took place as Russia was at war in Ukraine, with tens of thousands of servicemen involved in Russia's military effort in and around Ukraine, despite Russia's denials of any involvement in Donbas (Lewis, 2014).

As for enhancing the professionalism of those involved, the design of the exercise clearly enabled planners to test the stated aim of trying command and control systems for joint groups of forces. The exercise gave the same opportunity to participating servicemen. Ground, air and naval forces were exercised simultaneously, with the vastness of the Eastern MD giving the additional complexity of having several operational directions simultaneously within the one strategic direction (MoD, 2014an).

There was no parallel inter-service exercise in 2014 as there had been in the preceding years. *Vostok*-2014 was probably big enough and already included the opportunity to exercise several inter-service operations. In addition, Russia's Armed Forces were at the time also involved in fighting in eastern Ukraine. The only significant parallel activity was that the Strategic Missile Forces in the Altai region in the Central MD went on exercise in September with 4,000 servicemen and 400 pieces of equipment. Episodes included field deployment and measures against diversionary units, electronic warfare and cruise missiles. Units from the Air Force and the Central MD participated (RIA, 2014a). This was the biggest and probably most complex exercise for the Strategic Missile Forces identified in this study. Taking place in the same month as the annual strategic exercise *Vostok*-2014 it at least enabled command and control structures from the political level down to factor in and exercise an escalation from conventional war to nuclear.

4.6 Surprise inspections in 2014[28]

As the map in figure 7 illustrates, there were 18 surprise inspections in 2014. They began in 2014 just as they ended in 2013, with anti-submarine operations in the Northern Fleet. The first surprise inspection started on 27 January and included two Il-38 and Tu-142 anti-submarine aircraft and two small anti-submarine ships from the Kola Flotilla (MoD, 2014a). The second surprise inspection took place between 27 and 31 January in the Strategic Missile Forces unit in Iuria, 1,000 km north-east of Moscow. The MoD noted that this surprise inspection came days after a surprise command post exercise for clarifying and evaluating the fall-out from the use of weapons of mass destruction (MoD, 2014b). One interpretation of these two exercises was that they constituted preparations for launching a nuclear retaliation.

The third surprise inspection started on 31 January and involved an Air Force training centre in western Russia flying an undisclosed number of heavy MiG-31 fighters and Su-24 fighter-bombers as well as Su-25 ground attack aircraft. Exercise episodes included mid-air refuelling and attacks on ground targets with fighter coverage. Interestingly, it also included what seems to have been exercising the whole mobilisation chain of receiving and equipping mobilised personnel and assigning them to units (MoD; 2014c). This probably enabled the units to exercise not only all-arms episodes between three different Air Force functions, but also how to augment the units' peacetime establishment.

On 3 February, it was the turn of the Naval Infantry Regiment of the Northern Fleet for a surprise inspection, the fourth. It included a naval infantry company, some 200 servicemen and 20 vehicles, that exercised road transport and loading vehicles onto landing ships as well as getting the regiment's anti-terrorism/rapid-response unit onto a transport aircraft (MoD, 2014d). The fifth surprise inspection took place in the Baltic Fleet, also in early February. It included 2,000 servicemen, 100 vehicles, 10 aircraft and helicopters. It covered command and control structures, units from the fleet's Coastal Defence Forces, surface and landing ships, supply ships and the Naval Aviation. The stated aim was to assess and verify the ability of units to go to higher readiness levels and the ability of stand-by units to carry out core role tasks (MoD, 2014e). The different types of units involved enabled at least command and control structures to exercise with a naval all-arms perspective.

The sixth surprise inspection was the biggest and most important and began two weeks later. The president gave the order to start the week-long measure on 26 February (MoD, 2014f). It included 150,000 servicemen, 90 aircraft, 120 helicopters, 880 tanks, 1,200 pieces of equipment and 80 ships (MoD, 2014g; MoD, 2014h). The measure included the Western MD (which borders Ukraine)

[28] See appendix 6 for details and sources.

and all units on its territory such as the 20th and 6th all-arms armies, the 104th Air Assault Regiment and the 1. AFADC, the 2nd All-Arms Army with two independent motor rifle brigades (the 15th and 23rd) from the Central MD, as well as the commands of the Aerospace Defence Forces, the Airborne Forces, the Long Range Aviation and the Transport Aviation. In a second phase, the Baltic and Northern fleets were involved (MoD, 2014f; MoD, 2014l, MoD, 2014j). This clearly enabled all services to practise all-arms operations as well as joint inter-service operations together.

There were differences compared to previous surprise inspections. The MoD was eager that this one should attract attention. Usually, a surprise inspection generates one or two articles on the MoD website. Major surprise inspections, such as the one in the Far East in summer 2013, may generate up to 11. This surprise inspection generated 16, all repeating the size of the exercise. Before this, MoD articles about surprise inspections usually focused on assessing command and control, unit readiness or ability to carry out core role tasks. The tone was now more threatening. It focused on units deploying over long distances to anywhere the General Staff directed them to start operations (MoD, 2014g), crossing the sea (MoD, 2014h), and long-range deployments of air units including to auxiliary field air bases (MoD, 2014i) as well as forces' endurance, persistence and durability (MoD, 2014h). In short, Russia wanted to signal a readiness to go to war with all its military assets in the western strategic direction, a credible force for threatening to invade Ukraine from the north and the east. Kyiv and the outside world had to take note.

It was thus also a diversionary manoeuvre against Ukraine (Norberg, 2014) launched just days before Russian elite forces and Special Forces invaded Crimea. The new government in Kyiv had been in place only days when Russia launched a major exercise near its northern borders. Ukraine could thus not focus its available military assets on Crimea, which clearly facilitated Russia's invasion of the peninsula.

The seventh surprise inspection probably meant less for the fighting power of Russia's Armed Forces than for national-level military power since it focused on civil-military cooperation. In mid-April, 13,000 servicemen and 2,500 vehicles from the MoD were assigned to participate in emergency management exercises, primarily handling major fires, in Russia's Eastern MD and in Tajikistan (MoD, 2014m).

The eighth and ninth surprise inspections involved the Caspian Flotilla and started around 23 April and 5 May respectively. The first included 10 minesweepers and 400 servicemen, the latter 20 surface combat ships (MoD 2014n; MoD, 2014o). These inspections reinforced the pattern that all forces in all places and at all levels could face inspections. The tenth surprise inspection also involved the Navy. This time it was the Northern Fleet's anti-submarine forces. As in November 2013 and January 2014, it included the Naval Aviation's anti-submarine aircraft, two Il-38s

and two Tu-142s, but this time with cover from three MiG-31 fighter aircraft from the Western MD's 1. AFADC. The exercise started on 22 May with units deploying to an area where an enemy submarine had been observed and preparations to launch anti-submarine munitions (MoD, 2014p). Although small, this surprise inspection allowed for exercising command and control between two branches of service.

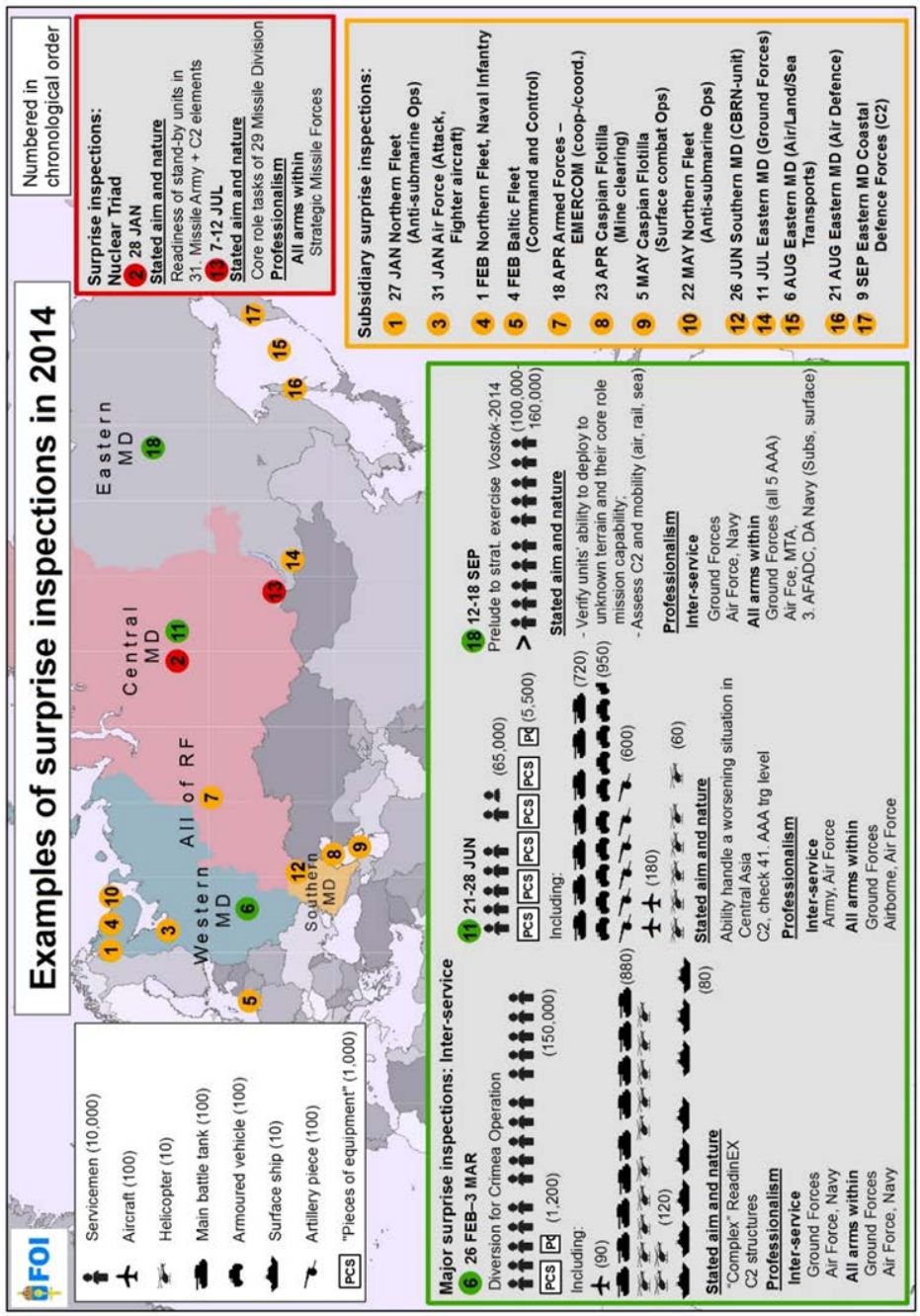
On 21 June the president ordered a surprise inspection, the eleventh in 2014. It covered the Central MD and aimed to test the ability to launch an operation to handle a worsening situation in Central Asia with Russian units earmarked for CSTO operations[29] and to examine training levels and command and control in the 41st All-Arms Army (MoD, 2014t; MoD, 2014q). The inspection included 65,000 servicemen and 5,500 pieces of equipment including 180 aircraft, 60 helicopters, 720 tanks, 950 armoured vehicles and 600 artillery pieces (MoD, 2014q; MoD, 2014r). Units involved were the Central MD's 2nd and 41st All-arms armies from the ground forces, the 2nd AFADC and the 98th Airborne Division, the 31st Independent Air Assault Brigade and the 38th Independent Signal Regiment from the airborne forces (MoD, 2014q), a key command and control asset in the airborne forces.

Mobility and command and control deserve attention here. Participating units deployed on average 350 km to their exercise areas (MoD, 2014q), presumably by both rail and road. A movement control organisation with eight helicopter-borne command posts, radio communications, recovery vehicles and personnel ensured smooth movements along the four main transport routes. Interestingly, there was also cooperation between the Military Automobile Inspection and its MVD counterpart about road safety procedures (MoD, 2014r). The Military Transport Aviation used 96 flights with Il-76 transport aircraft to move an airborne division, presumably the 98th Airborne, in two days (MoD, 2014q; MoD 2014t). Training and checking long-range transport capabilities were clearly a priority.

Several aspects pertained to command and control. This surprise inspection exercised structures from national level down in launching both joint inter-service operations and all-arms operations. Starting at the top, the COs of the Ground Forces, the Air Force, the Airborne Forces and the Military Transport Aviation, and the chief of staff at the National Command Centre, received the initial orders. The CGS ordered the General Staff's Communications Directorate to deploy systems to the field to ensure a steady flow of information of daily reports from command posts and exercise areas to the national command centre (MoD, 2014q).

[29] For more about the CSTO operational reaction forces see Norberg (2013).

Map 7 Examples of surprise inspections in 2014



The inspection was obviously not only for an MD. At least one all-arms army deployed a field HQ (ibid.). The exercise framework incorporated the establishment of an operational all-arms group of forces with units from the Airborne Forces and Ground Forces with Air Force support in the Chebarkul training area in the Southern Urals. This group then redeployed some 3,000 km (MoD, 2014t). The follow-up processes included a sizeable review commission headed by the CGS. It came to the Central MD five days before the surprise inspection began (MoD, 2014q), somewhat calling into question the real element of surprise, at least for the top levels of the Central MD. Although future Russian crisis management operations in Central Asia may have the label "peace-creating" (*mirotvorcheskii*), the size and scope of this major surprise inspection showed preparations for high-intensity combat operations on a wider scale.

The two ensuing surprise inspections pertained to weapons of mass destruction. The twelfth started on 26 June. The CBRN defence brigade in the Southern MD was put on alert and 1,200 servicemen and 110 vehicles deployed to exercise areas 100 km away from base. They carried out live-fire exercises and set up a field decontamination facility (MoD, 2014s). In the thirteenth, the Strategic Missile Forces' division in Irkutsk received orders to deploy missile batteries and support units to the field to perform core role tasks (MoD, 2014u).

The following five surprise inspections identified all took place in Russia's Eastern MD and were most likely rehearsals for the annual strategic exercise, *Vostok*-2014 in September. The fourteenth surprise inspection started on 11 July in Ulan-Ude and involved the 36th All-Arms Army. It included some 9,000 servicemen and 4,000 vehicles (MoD, 2014uu). This ratio of only 2.25 servicemen per vehicle perhaps reflected a focus on transports. The fifteenth included an air defence battalion on Sakhalin (MoD, 2014v). The press statement, published on 21 August, was unclear about the exact time. This inspection may therefore have been part of other, larger nearby exercise activities at that time.

On 6 August, the Eastern MD CO ordered a surprise inspection, the sixteenth in 2014, for the Joint Forces Command in north-eastern Russia. The stated aim was to check the capacity for long-distance deployment of ground forces units with equipment by air, rail, sea and road transport to Sakhalin and Kamchatka. Su-27, Su-30 and Su-35 fighters protected An-124 and An-12 transport aircraft. Su-24 fighter-bombers also participated (MoD, 2014w). The seventeenth surprise inspection included 1,500 servicemen, 40 aircraft such as MiG-31, Su-24 and Su-35 fighters, Tu-142 and Il-38 anti-submarine aircraft, Mi-8AMTSh helicopters and 20 ships from the Eastern MD's Coastal Defence Forces and the Air Force in a joint forces group defending coastal areas (MoD, 2014x). The relatively small number of participants probably meant that the focus was hardly on moving full ground forces units, but on less manpower-intensive air operations as well as on command and control.

The eighteenth surprise inspection in 2014 was second in terms of size only to the one in the Western MD in February. It took place on 12–18 September with the aim to check the forces' capability to perform their core role tasks against the background scenario of an evolving crisis. It included 100,000 servicemen from the Air Force, Ground Forces and the Navy. All five all-arms formations from the Eastern MD ground forces and Air Force units from the Central and Eastern MDs were involved. The Navy deployed surface ships and submarines (MoD, 2014y). Units left their bases and deployed by road, air and rail transport towards Russia's Pacific coast (MoD, 2014z). This made it possible to exercise launching all-arms operations in the Ground Forces and the Navy. The same was probably true for the Air Force since the surprise inspection also involved the 3rd AFADC and the Military Transport Aviation and the Long Range Aviation (MoD, 2014y). Altogether, this surprise inspection clearly made it possible to exercise the launch of joint inter-service operations. One military press source claimed that 160,000 servicemen were involved (Tikhonov, 2014a), the same number as in *Vostok*-2014. At the end of this surprise inspection, the scene was set for *Vostok*-2014.

4.6.1 Observations about surprise inspections in 2014

In 2014, the Russian MoD and General Staff used surprise inspections to check readiness all across Russia and in all branches and independent arms of service. How did this affect the fighting power of Russia's Armed Forces? The total number of surprise inspections identified for 2014 rose to 18 from 11 in 2013. The number includes both major and subsidiary surprise inspections. The key contribution to fighting power, however, was that of the three major surprise inspections: in the Western MD in February, in the Central MD in June and in the Eastern MD in September. These three enabled both command and control structures and units to launch and exercise all-arms operations within all branches of service as well as joint inter-service operations. In contrast to 2013 when the surprise inspections seemingly took place independently of the annual strategic exercise, the major surprise inspection in the Eastern MD in September was clearly linked to the annual strategic exercise, suggesting an increasing complexity and consequently a greater challenge for command and control.

As seen on the map in figure 7 and detailed in appendix 6, the Navy saw seven subsidiary surprise inspections (#1, 4, 5, 8, 9, 10, 17), and the Air Force four (#3, 10, 16, 17), with both branches joining forces in two of them (#10, 17). There seemed to be no subsidiary surprise inspections explicitly targeting the Ground Forces, but they were at the centre of the three major surprise inspections, where the Air Force and Navy also participated. The Aerospace Defence Forces and the Airborne Forces only appeared in the major surprise inspections while the Strategic Missile Forces had one subsidiary surprise inspection.

Subsidiary surprise inspections covered not only the core role tasks of the units concerned but also key functions such as command and control, civil-military

cooperation and long-distance transport. Command and control was mentioned explicitly most often, in seven cases, and is a function likely to benefit greatly from surprise inspections. Civil-military cooperation continued to be a part of the exercises reported in 2014. In 2013, regional administrations were a part of the effort to facilitate transport, mobilisation and territorial defence in the annual strategic exercise. In 2014, there was a quite sizeable surprise "training", but with a focus on emergencies. In both cases, both soldiers and military command and control structures had the opportunity to improve their understanding of civilian structures. One inspection (#16) was explicitly focused on the strategic transport of ground forces by road, air, rail and sea, but was probably part of the pre-*Vostok*-2014 arrangements.

Perhaps activities that were formerly part of the yearly training cycle or pre-exercise deployments to amass forces for an annual strategic exercise were given the label "surprise inspection" in 2014. The effect was the apparent merger of two important types of exercises relevant for fighting power into something more coherent: a surprise inspection evolving into a strategic exercise, i.e. both starting and carrying out operations.

Why did MoD press articles about the three major surprise inspections 2014 give a lot of detail about the numbers of servicemen and items of hardware as well as participating units? Perhaps the MoD was very eager for these exercises to attract attention. Given the timing, the Western MD surprise inspection at the end of February was a diversion in support of Russia's invasion of Crimea. The other two major surprise inspections took place as Russia deployed significant forces around and in Ukraine. If the stated numbers are true, this suggests that the Armed Forces in 2014 were able not only to carry out two joint operations in two MDs and different strategic directions adjacent to each other (as in 2011 and 2012), but also in strategic directions *not* adjacent to each other. This probably stretched the Armed Forces. The Eastern MD surprise inspection which later morphed into *Vostok*-2014 required the highest number of reservists noted in this study: 5,000-6,000 (see section 4.5 about *Vostok*-2014).

All the Russian military exercise activities in 2014 outlined here increased compared to 2013, in terms not only of the size, scope and complexity of the annual strategic exercise but also of the number and scale of surprise inspections. This clearly gave Russia's Armed Forces and its political-military decision makers ample opportunity to develop professionalism and improve command and control as well as making it possible to exercise a greater mass of servicemen and units to improve fighting power.

In 2014 there were three major surprise inspections and 15 subsidiary surprise inspections, compared with one major surprise inspection and ten subsidiary surprise inspections checking different functions in 2013. The annual strategic exercise and the three major surprise inspections alongside Russia's operations in and around Ukraine, including reinforcing Crimea, indicate high ambitions for

what the armed forces should be able to do. Clearly, the military exercise activities of 2014 helped in achieving that ambition.

4.7 Trends

Table 2 Overview of mass in Russian strategic and parallel exercises 2011–2014

Year	Exercises	Russian servicemen	Equipment (stated number of pieces): details
2011	*Tsentr* *Shchit* *Soiuza*	12,000 7,000 = **19,000**	1,000, incl. 100 MBTs, 50 aircraft, 10 ships 200, incl. 100 MBTs, 100, 50 aircraft
2012	*Kavkaz* Western MD CPX	8,000 7,000 = **15,000**	> 360, incl. 20 MBTs, 200 APC/AIFVs, 100 arty, 30 aircraft/helo, 10 ships > 180 incl. 150 ground forces vehicles and 30 aircraft/helo
2013	*Zapad* Northern Fleet	RU 11,920 2,500 = **13,420**[30]	180 incl. 10 tanks, 40 aircraft, 10 ships (Baltic Fleet) 30 ships, 50 vehicles, 20 aircraft/helicopters
2104	*Vostok*	a) 100,000 b) 155,000 = **up to 155,000**	a) 5,000 incl. 1,500 MBTs, 120 aircraft, 70 ships b) 8,000 incl. 4,000 armoured vehicles, 632 aircraft, 84 ships

What trends were visible in Russia's military exercises over the four years 2011–2014 and what could that mean for the fighting power of Russia's Armed Forces in terms of mass and professionalism? As seen in table 2, the main change was from mid-2013 onwards when there was a sizeable increase in the sizes of the annual strategic and parallel exercises. The stated number of servicemen rose from between 15,000 and 19,000 in strategic exercises in 2011–2013 to 155,000 in 2014. The numbers for quantities of equipment rose from up to 1,000 to 8,000 over the same period. The planning process in Russia's Armed Forces for staffing and

[30] As noted in section 4.3 in the main text, other assessments give significantly higher numbers, 70,000–90,000 servicemen.

equipping units and putting them through training probably took years. What, then, could explain the six- to eightfold increase in the stated size in two years? Russia hardly set up that many new units in the space of two years. The use of reserve units is a possible explanation. The Armed Forces called up reservists for *Vostok*-2014 and preceding surprise inspections, but not in such numbers.

One possible explanation about *Vostok*-2014 was that Russian decision makers felt less constrained launching big exercises in the Far East where the restrictions stipulated by the Organization for Security and Co-operation in Europe (OSCE)'s Vienna Document of 2011 on confidence- and security-building measures (CSBMs) (see section 3 above) were concerned. The bet may have been that Europeans were less likely to object if big exercises were taking place far from their borders. For the same reason, the actual size of *Zapad*-2013 was probably much bigger than stated, given the complexity of the exercise with for instance civil-military cooperation and an ambitious part for the Interior Troops. Another explanation could be that Russia wanted to show that, despite having significant forces tied to operations in and around Ukraine in 2014,[31] it could still launch big inter-service operations. The size of surprise inspections, however, had increased even before *Vostok*-2014.

[31] See for example Sutyagin 2015.

Table 3 Overview of mass in Russian surprise inspections 2013–2014

Only surprise inspections where MoD stated mass. Bold text indicates major surprise inspections.

Year	Surprise insp. #; Unit	Servicemen	Equipment (stated number of pieces): details
2013	1. Central MD	7,000	"a few hundred", 40 aircraft/helicopters
	2. Southern MD	7,000	250 armoured vehicles, 50 arty pcs, 20 aircraft/helicopters, 20 ships
	3. Airborne Forces	500	29 armoured vehicles
	4. Air & Space Defence Forces	8,700	-
	5. Air Force	-	20 aircraft/helicopters
	6. Eastern MD	**a)** (initial figure) **80,000 b)** (later) **160,000**	**a)** (initial figure) **1,000 tanks/armoured vehicles, 130 aircraft/ helicopters, 70 ships** **b)** (later figure) **5,000 tanks/armoured vehicles, 130 aircraft/ helicopters, 70 ships**
	7. Strat. Miss. Forces	2,500	350 pcs
	8. Southern MD	600	110 pcs
2014	4. Northern Fleet	200	20 vehicles
	5. Baltic Fleet	2,000	-
	6. Western & Central MD	**150,000**	**880 tanks, 1,200 pcs of equipment, 90 aircraft, 120 helicopters, 80 ships**
	7. EMERCOM	13,000	2,500 vehicles
	8. Caspian Flotilla	400	10 minesweepers
	9. Caspian Flotilla	-	20 surface combat and support ships
	10. Northern Fleet	-	4 anti-submarine aircraft, 3 fighter aircraft
	11. Central MD & Airborne	**65,000**	**5,500 pcs, 180 aircraft, 720 tanks, 950 armoured vehicles, 600 arty pcs**
	12. Southern MD (CBRN)	1,200	
	14. Eastern MD	9,000	4,000 pcs
	17. Eastern MD (Navy, Air Force)	1,500	

As for surprise inspections, table 3 shows that the reported mass in subsidiary surprise inspections in 2013 was up to 8,700 servicemen and a couple of hundred pieces of equipment each time, often lower. There was one exception: the major surprise inspection in the Far East in July with 160,000 servicemen and 5,000 pieces of equipment. The pattern was similar in 2014. Subsidiary surprise inspections reportedly had up to 9,000 participants, except for the EMERCOM-

related surprise inspection with 13,000 MoD servicemen. The key exceptions were the three major surprise inspections: in the Western MD in late February, with 150,000 servicemen and 1,200 pieces of equipment; in the Central MD in June, with 65,000 servicemen and 5,500 pieces of equipment; and in the Eastern MD in September, with 155,000 servicemen.

It is tempting to explain this increase in size and scope by noting that it took place after Sergei Shoigu became defence minister in November 2012 and there may have been a political intention to inflate numbers in order to project increasing fighting power, a Shoigu effect. However, the radical increase in the stated numbers appeared some time after he became defence minister. *Zapad*-2013 took place after the first major surprise inspection, in July 2013, and its stated size was comparatively small. One reason may have been that by then planning processes had gone so far that planners could not increase the size of exercises easily. Another explanation was that it was actually much bigger, for the reasons mentioned above. There was also the possibility that these were planned developments in a long process of overhauling the Russian Armed Forces, irrespective of who was at the helm. Generous defence spending for many years and long-term armaments programmes arguably indicate that a long-term plan was a plausible explanation.

What is clear is that the stated size of both strategic exercises and major surprise inspections increased after mid-2013. Concerning the fighting power of Russia's Armed Forces, this enabled training, both launching and conducting operations with larger formations that trained both all-arms and joint inter-service as well as joint inter-agency operations. The number of surprise inspections increased between 2013 and 2014. This probably directly improved readiness in the units concerned. All units in the Armed Forces probably noticed that surprise inspections, with accompanying evaluations, had become more common, and that itself would indirectly have increased their readiness.

5 Conclusions and implications

So what conclusions are possible to draw from Russian official statements and media reporting about strategic and parallel exercises as well as surprise inspections in 2011–2014, especially regarding the evolving fighting power of Russia's Armed Forces? The Russian notion of fighting power outlined in the introduction includes quantity and quality aspects such as the number pieces of equipment and of servicemen as well as training and readiness levels and the quality of commanders and command and control systems. The Russian Armed Forces have clearly addressed these factors in their exercise activities over the period examined. The overall image of the exercises clearly conveyed increasing scope and complexity. This underpins three main conclusions and some observations. These, in turn, have implications for defence and security policy makers.

First, the exercises were about large-scale interstate war. In 2011–2014, Russia's Armed Forces exercised for interstate conflict and the transition from peace to war, i.e. starting and conducting large-scale conventional combat operations, often with escalation into using nuclear weapons. Annual strategic and parallel exercises as well as surprise inspections were chances to train for at least one and often two joint inter-service and joint inter-agency operations as well as all-arms operations within service branches. This capability was clearly bigger than any Russian military involvement in conflicts and volatile regions in the former Soviet Union would require. Nuclear forces often, but not always, trained in connection with annual strategic exercises or major surprise inspections. Thus, in 2015, Russia had been preparing its armed forces for a regional confrontation with possible escalation into using nuclear weapons for at least four years.[32]

Second, all of Russia's Armed Forces were involved at some point in the period studied. They exercised all three branches and all three independent arms of service as well as Russia's nuclear weapons air–sea–land triad in both annual strategic and parallel exercises as well as in surprise inspections. Exercises took place in all of Russia's strategic directions on land, at sea as well as in the air and space. Forces and command structures trained in terrains and climates where they probably expected to fight. No strategic direction appeared less important than any other. Strategic mobility and long transport distances were key features in the exercises. This indicated that Russian planners probably saw all of the Armed Forces as a resource base for launching operations in any strategic direction. This approach was also apparent in Russia's military operation in and around Ukraine in 2014.

[32] On the Russian debate about using nuclear weapons see also Persson 2015.

Third, the exercises increased the Armed Forces' fighting power (*boevaia moshch*) and displayed ambitions to increase Russia's military power (*voennaia moshch*). The six- to eightfold rise in the stated numbers meant growing ambitions for the Armed Forces in 2011–2014. The MoD numbers – up to 150,000–160,000 service personnel and 8,000 pieces of equipment in an exercise – were impossible to verify and should be treated with caution. Russia may well have sought to convey an impression of that kind of fighting power. However, even if one halves the stated numbers, there was still a significant increase in the fighting power engaged in exercises. In reality the military resources Moscow would field in a conflict would always depend on the perception of how existential the conflict at hand was for Russia. The involvement in exercises of other agencies underlined the possible preparations for a wider war effort, including other parts of Russian society alongside the Armed Forces. It was thus not only about the Armed Forces' capability to fight, but also about the Russian state's ability to wage war.

After the exercise cycles in 2011–2014, in 2015 Russia's Armed Forces were most likely capable of launching large-scale conventional high-intensity offensive joint inter-service operations with support from other government agencies in Russia's military organisation or, to put it simply, to conduct big war-fighting operations with big formations. Depending on the actual length of the exercises, the numbers stated probably reflect Russian ambitions to be able to amass units to start and conduct operations. Actual operational success would depend on many factors not studied here such as the adversary, season, climate and terrain. Exercises gave many opportunities to strengthen command and control, the key function in operations and in the Russian definition of fighting power. Consequently, in late 2015, Russian policy makers had a readily available military tool that they were ready to use.

There are several implications, particularly for Russia's neighbours and especially those with a land border with Russia. The first is that the Russian Armed Forces were clearly preparing for wars with other countries. The sizes of the exercises could not be justified solely in terms of training for counter-terrorism or counter-insurgency operations or peacekeeping. Furthermore, the involvement of other agencies and civil authorities at national and regional level suggests an approach to war as a society-wide effort. Russia's ambition to build such capabilities was clear. Its war against Ukraine showed the willingness to use them. True, countries prepare to defend their territories and Russia's territory arguably requires sizeable armed forces and civil-military cooperation. However, only one country sharing a land border with Russia in 2015 had the military resources to be able to take, and hold, any part of Russia's territory – China.

The second implication concerns countries that since 2001 have cut their armed forces and prioritised expeditionary forces, peace support and anti-terrorist operations, for example in Afghanistan, over large-scale war-fighting. In 2015 and for, say, at least some five years to come Russia would have an asymmetric

advantage in terms of quantity. True, Russia's Armed Forces in 2015 were smaller than the Soviet Union's, but most of Russia's neighbours, especially in Europe, had cut their forces significantly and had not reversed the trend. Moreover, in 2014–2015 Russia was clearly willing to use its Armed Forces and probably had a high acceptance of casualties.

Third, the sharp increase in the stated numbers of participants in the exercises suggests that Russian policy makers probably felt that arms control agreements and confidence- and security-building measures (CSBMs) such as the Vienna Document were less and less relevant. If this is so, the political and military relevance of such processes is reduced, and policy makers should keep this in mind if Russia proposes new such measures. The third implication is that Russia's political leadership has been building a military tool able to support a more confrontational approach to the outside world. Russia's political rhetoric and military body language indeed went hand in hand.

Fourth, as noted, strategic exercises rotated between Russia's four MDs. Surprise inspections took place in all of them. Forces and commanders thus got experience of fighting in different conditions. Therefore military threat assessments of how far Russia can use force in different strategic directions should weigh in the resources and activities of all of Russia's Armed Forces. Basing assessments only on what Russia had in one MD is misleading. The point should not be which units Russia had, say, in the Western MD, but what units Russia could bring into the Western MD in what time. Whatever Russian military planners perceive as threats in terms of regional or large-scale wars, they are unlikely to think that the assets of one MD are enough to handle it.

Russia's allies made only small contributions in terms of fighting power. Their usefulness for Russia was primarily political and in selected military aspects. Defence and security cooperation in the CSTO and in the CIS Joint Air Defence Cooperation gives Russia access to both territories and probably to quite an extent the defence structures of these countries as well. Recurring exercises in the CSTO context were thus important for political optics – Russia had its own alliance – and for preparing command and control of combined operations in possible conflict areas in the participating member states.

In 2011–14, Russia's military men gave themselves plenty of opportunity to train in the spirit of General Suvorov's motto "Difficult on exercise, easy in battle". Exercises were indeed difficult insofar as they covered launching and fighting joint inter-service operations. They were indeed about battle in terms of large-scale operations, about wars against other states and not about small counter-terror or counter-insurgency operations. These exercises were unlikely to make anyone's life in battle easy, but they produced a usable military tool. Through its choices to launch military operations in Crimea and Donbas in 2014 and in Syria in 2015, Russia's political leadership showed a willingness to use that tool.

Appendix 1 Russian military exercises in 2011

	Stated aim and nature	AOO	**Scope** *Mass* S=servicemen; V=vehicles	***Professionalism***			
				All arms within	**Inter-service**	**Inter-agency**	**Allies**
STRATEGIC *Tsentr*-2011 19–27 SEP (9 days)	"Strategic exercise" (MoD, 2011a) to a) develop ways to generate and deploy CSTO groups of fcs (MoD 2011a; RIA 2011) b) train to plan and command fcs for joint inter-service ops c) C2 during transition peace – war, plan SpecOps, long-distance deployments (MoD, 2011a; RIA, 2011b)	Western RF (Urals, Volga basin) EX areas in RF: Totskoe (254 All Arms Ex Area), Ashaluk, Kapustin Yar, Chebarkul (255 All Arms Ex Area) Kazakhstan (Oimasha) Tajikistan (Lyaur), Kyrgyz-stan (Kant Air Base), Caspian Sea (RIA 2011a)	S: 12,000 V: 1,000 "pcs" of which 100 MBTs (RIA, 2011b), APCs/AIFVs, Arty, Air Defence (all ranges), surface-to-surface missiles – Iskander, Tochka-U (Khudoleiev, 2011) 50 a-c 10 ships (MoD, 2011a)	Army Air Force Navy	Army Air Force Caspian Flotilla Kazakh Marines (MoD, 2011a)	"Op. groups" from Russia's MVD, FSB, FSO, MChS, FSKN, FSIN (MoD, 2011a; Kremlin, 2011b)	Forces: KZ, KY, TJ and UKR Staffs: Above + BY, AR (Kremlin, 2011b)
PARALLEL *Schit Soiuza*-2011 16–22 SEP (7 days)	Russian–Belorussian "operational exercise" (Andreev, 2011b)	RF: Nizhegorod and Astrakhan Oblast (Ashaluk)	S = 7,000 (RF) + 5,000 (BY) ARMY 200 "pcs" incl 100 MBTs, 100 Arty/AIFVs, Rocket Arty, Air Defence (all ranges) AIR FORCE 50 a-c and helo (MoD 2011b)	Army	Army Air Force Air Defence		BY

Appendix 2 Russian military exercises in 2012

	Stated aim and nature	AOO	Scope *Mass* S=servicemen; V=vehicles	*Professionalism* All arms within	Inter-service	Inter-agency	Allies
STRATEGIC *Kavkaz*-2012 Southern MD 17–22 SEP (6 days)	a) C2 training b) Test "Southern MD's JSC and new automated C2 sys" (RIA Novosti, 2012; Kremlin, 2012b) c) Strategic "C2 EX" (Vladykin, 2012; Krasnaia Zvezda, 2012); "Strategic-Op EX" (Kremlin, 2012b)	Southern RU/North Caucasus Caspian and Black seas	S= 8,000 V= 20 MBTs, 200 APCs/AIFVs, 100 arty pcs 30 a-c & helo 10 ships (Vladykin, 2012)	Army	Army Navy Air Force	MVD, FSB, FSO, MChS (MoD, 2012a)	
PARALLEL CSTO	SF exercise	Armenia					CSTO (Krasnaia Zvezda, 2012)
Western MD (23 SEP)	"CPX" for Joint fcs of	Murmansk region and Western MD "All of European Russia" (Vladykin, 2012)	S=7,000 V= 150 pcs "ground fcs equipment" 30 a-c/helo (Krasnaia Zvezda, 2012) Northern Fleet: Aircraft carrier, 2 big anti-sub ships, 2 big landing ships, small anti-sub ships, small missile ships, nuclear and diesel subs (Vladykin, 2012)	Army Navy	Navy - Northern Fleet Air Force 1 AFADC Army - all arms formations		
Airborne /Western MD 23 SEP	Battalion airborne landing (Krasnaia Zvezda, 2012)	Pskov region	Battalion size				BY

Appendix 3 Russian military exercises in 2013

	Stated aim and nature	AOO	Scope *Mass* S=servicemen; V=vehicles	*Professionalism*			
				All arms within	**Inter-service**	**Inter-agency**	**Allies**
STRATEGIC *Zapad*-2013 20–26 SEP (MoD, 2013ab)	Combined strategic exercise	Western Russia EX areas Gozhski, Brestski, Obuz-Lesnovski (BY) Chmelevka, Pravdinski (Kaliningrad/RF) (MoD, 2013ac)	S (in RF) = 9,400 (RF) + 200 (BY) S (in BY) = 2,520 (RF + ? BY Su-25, Mi-8, Mi-24 Tactical airborne helicopter landing 180 pcs of equipment, 10 tanks 40 a-c 10 ships (Baltic Fleet)	Army	Navy support to land ops w indirect fire (Tikhonov, 2013b)	FSB MVD incl. SF, regional commands Regional administrations: N. Novgorod Smolensk, Federal ministries: Transport, Energy	BY
PARALLEL *Boevoe Sodruzhestvo* 13 AUG–12 SEP	CIS Joint Air Defence System	All CIS states, Ashaluk Exercise Area (RF)	S=4,000 (RF=500) 200 pcs of equipment S-400, S-300, Pantsir-S (MoD, 2013aa)		Space Air Defence Air Force		BY, KZ, KY, TJ
Vzaiomo-deistvie-2013 20–25 SEP	Train, assess and develop CSTO CORF and Regional Group of Forces (CSTO, 2013)	Belarus	S=600				AR, BY, KZ, KY, TJ (max. coy size)
Northern Fleet 21 SEP	"Large-scale exercise" (Krasnaia Zvezda, 2013)	Kola Peninsula Barents Sea	S=2,500 30 combat and spt ships 50 pcs of equipment A-c carrier 20 a-c and helo	Navy incl. AD, Aviation, Coastal Defence Forces (RIA, 2013)			

Appendix 4 Examples of Russian military surprise inspections in 2013

Military District; service arm/branch, start date	Stated aim and nature	AOO	Scope *Mass* S=servicemen V=vehicles	Professionalism	
				All arms	Inter-service
1. Central MD 19 FEB (MoD, 2013a)	- C2 - MD/JSC ability to assemble, coordinate and command all-arms formation - Deploy to primary mission areas	Central MD "Western operative-strategic directions"	In "practical measures" S=7,000 "a few hundred" pcs of military equipment Some 40 a-c/helo	Army 98 ABDiv (parts) (MoD, 2013c)	
2.Southern MD 28 MAR (MoD, 2013b)	- Verify forces' capability to carry out core missions/tasks) - Identify problems of the military reform - C2	Southern RF	S=7,000 Up to 250 armoured vehicles (no MBTs mentioned), 50 arty pcs, 20+ a-c and helo Some 30 ships	Army (MoD, 2013c)	Army Air Force VTA Navy & Nav. Inf. Nav Inf Airborne
3. Airborne forces 16 APR (MoD, 2013c)	Airborne Regiment C2	Western MD (Pskov region)	S=500 29 APC/AIFV		
4. Aerospace Defence Fcs, Air Force, Air Defence Fcs 27 MAY (MoD, 2013d)	Defence against air and missile attack C2 (including mobile units)	Western RF Ashaluk exercise area (Astrakhan Oblast)	S=8,700	Air Defence	Aerospace Defence Fcs 1. AFADC VTA, DA
5. Air Force 11 JUN (MoD, 2013e)	Functional Air Force exercise	Western RF	20 a-c and helicopters: Su-27 (fighters) Su-24 (bombers), Mi-8 and Mi-24	Air Force Army Aviation	
6. Eastern MD 13–20 JUL (MoD, 2013f)	"Complex" ReadinEX	Eastern RF a) Sakhalin b) Chita Oblast c) Ussuriisk d) Pacific Fleet	Initially: S=80,000, V=1,000 MBTs/APCs/AIFVs; 130 a-c and helo; 70 ships (MoD, 2013f); Four days later: S=160,000; 5,000 MBT/APC/AIFV, same a-c/helo/ships (MoD, 2013g)	Army: 29., 36., 41. AAA; 11., 83. ABB	Army Air Force (support) Navy

		(MoD, 2013h)	1 missile cruiser, 2 big anti-sub ships, 2 landing ships, 1 destroyer, small missile & anti-sub ships (MoD, 2013h)	Support from a-c/ helicopter & chem-bio Units Navy (Aviation, Nav. Inf., Coastal Def Fcs	
Military District; service arm/branch, start date	**Stated aim and nature**	**AOO**	**Scope** *Mass* S=servicemen V=vehicles	**Professionalism**	
				All arms	Inter-service
7. Strategic Rocket Forces 22 JUL	Orenburg Missile Army field deployment (MoD, 2013j)	Orenburg Oblast	S=2,500 (mil and civ) 350 pcs of equipment		
8. Southern MD 8 AUG	C2 (MoD, 2013k)	Southern MD	S=600 110 pcs of equipment; one-two Motor Rifle Bn		
9. Southern MD 12 AUG	Combat Support Special Tactical EX (MoD, 2013l)	Pipeline Bn from MD MTO Bde	S=170 50 pcs equipment		
10. Southern MD 13 AUG	C2	Black Sea Fleet	Fleet C2 elements - Anti-Sub Ships Bde; Landing Ships Bde; Nav. Inf. Bde; Nav. Aviation; support units	Navy	
11. Nuclear forces 30 OCT	Nuclear deterrence forces and Aerospace Defence Forces (MoD, 2013n; MoD, 2013o; MoD, 2013p)	All of Russia	Missile launches (one from each area) - Land: Plesetsk & Orenburg to Kula Ex area in Kamchatka (MoD, 2013n) - Sea: Barents & Okhotsk Seas to Kula & Chizha EX area in north-east RF (MoD, 2013o) Air Defence live fire Ex - Long range S-300/400 at Kapustin Yar - Short range Pantsir at Ashaluk (MoD, 2013p)	Strat. Missile Fcs Long Range Aviat. Nuclear Subs (NOR & PAC fleets) Political level involved, transfer of command between MDs (Pinchuk, 2013)	
12. Northern Fleet 13 NOV	Anti-submarine operations (MoD, 2013q)	Barents Sea	Il-38 Recce A-c & 2 small anti-sub ships (Kola Flotilla)		

Appendix 5 Russian military exercises in 2014

	Stated aim and nature	AOO	Scope *Mass* S=servicemen; V=vehicles	*Professionalism* **All arms** within	**Inter-service**	**Inter-agency**
STRATEGIC *Vostok*-2014 19–25 SEP	Strategic staff exercise Final phase in C2 training cycle Aim to check: i) combat readiness of "first-to-use" forces" ii) infrastructure for strategic deployments iii) C2 systems for joint groups of forces, especially Navy (MoD, 2014an)	20 ex areas in the Eastern MD: e.g Sakhalin, Chukotka, Primoria; Navy EX areas Kamchatka and Primorskii Raion (MoD, 2014aa; al; ac)	S=100,000 servicemen Strategic Transport 6,000 km 1,500 MBTs (sic!) 120 aircraft 5,000 pcs of equipment 70 ships (MoD, 2014aa) S=155,000 (Sic!) 8,000 pcs of equipment incl. 4,000 armoured vehicles, 632 aircraft 84 ships (MoD, 2014al)	Ground forces (Motor Rifle, tanks, arty, air defence) (Tikhonov, 2014a) Launch Iskander (SS-26) (MoD, 2014ab) VDV (MoD, 2014al) Air Force A-50 VTA Il-76, An-12 DA Tu-95 launch airborne x-missile (MoD, 2014ab; 2014am) Navy, Coastal Def Nav Inf	Ground Forces All AAA from Eastern MD Navy Pacific Fleet Air Force 2. AFADC (Tikhonov, 2014b)	Other ministries with armed forces, no specifics Established cooperation procedures with other agencies and local authorities (MoD, 2014an)
PARALLEL Strategic Rocket Forces "in September"	C2 in Barnaul Missile Division Avoid diversionary units, x-missiles and EW	Altai region	S=4,000 400 pcs of equipment MiG-31, Su-24MR SF as OPFOR		RVSN Air Force and units from Central MD (RIA, 2014a)	

Appendix 6 Examples of Russian military surprise inspections in 2014

Military District; service arm/branch, start date	Stated aim and nature	AOO	Scope *Mass* S=servicemen V=vehicles	Professionalism	
				All arms	Inter-service
1. Northern Fleet 27 JAN	Anti-submarine operations (MoD, 2014a)	Barents Sea	Anti-aubmarine a-c Il-38 (Severomorsk-3) Tu-142 (Kipelovo) Two small anti-submarine ships from the Kola Flotilla		
2. Strat Rocket Forces 28 JAN	Standby fcs in 8. Missile Division, 31. Missile Army + C2 elements (MoD, 2014b)	Yuria, Kirovskaia Oblast			
3. Air Force 30 JAN	Lipetsk Air Force base (MoD, 2014c)	Karelia and Volga Basin	Su-25, Su-24, MiG-31		
4. Northern Fleet 3 FEB	Naval Infantry (MoD, 2014d)	Kola Bay	S=200 20 wheeled vehicles		
5. Baltic Fleet 4 FEB	C2 (MoD, 2014e)	Baltic Sea	S=2,000 Costal Def. Forces, Surface and Landing, Naval Aviation, spt units	Naval	
6. Western Strategic Direction 26 FEB–3 MAR (MoD, 2014f)	"Complex" ReadinEX C2 structures Western MD: 20. & 6. Army; 138. MRB 104. AAReg (MoD, 2014f, l) Central MD: 2. Army + 15. and 23. MRB – both SAMARA (MoD, 2014j) Airborne Forces Northern and Baltic fleets 1. AFADC	Units from Kola, Kaliningrad, Samara, Leningrad Oblast, Pskov, Kursk, Voronezh, Lipetsk Ex area Kirilovskii; 104. AAReg w helicopter transport (Leningrad Oblast), 800 km march (MoD, 2014j) C2 for Naval Aviation, surface ships, Coastal Def. Troops, clearing groups deploy (Il-76) to clear temp. air bases, a-c deployed from permanent bases (MoD, 2014i) VKO and VTA (MoD, 2014l)	S=150,000, 90 a-c 120 helo 880 MBT, 1200 pcs of equipment 80 ships (MoD, 2014g; 2014h) At Kirillovski range: S=1,800, 30 MBTs, 20 BMD 2,000+ pcs military equipment (MoD, 2014l) "All arms" ship groups Il-76 based air base clearing groups Other a-c flying as units (squadrons)		Army Navy Air Force

Military District; service arm/branch, start date	Stated aim and nature	AOO	Scope *Mass* S=servicemen V=vehicles	Professionalism	
				All arms	Inter-service
7. MD-level & EMERCOM 18 APR	C2, coordination in cooperation (MoD, 2014m)	All of Russia			
8. Caspian Flotilla 23 APR	Minesweepers (MoD, 2014n)	Caspian Sea	S=400 10 minesweepers		
9. Caspian Flotilla 5 MAY	Surface combatant ships (MoD, 2014o)	Caspian Sea	20 surface combat vessels and spt ships		
10. Northern Fleet & 1. AFADC 22 MAY	Anti-sub ops (MoD, 2014p)	Barents Sea	2 x Il-38 and 2 x Tu-142 anti-submarine a-c 3 MiG-31 provide air cover		Navy Air Force
11. Central MD 21-28 JUN	ReadinEX, C2 key role, check trg levels (41. Army) (MoD, 2014q) React to change in situation in Central Asian region (MoD, 2014t)	Central RF	S=65,000; 5,500 pcs of equipment, 180 a-c, 60 helo (MoD, 2014q), 720 MBTs, 950 AIFVs/APCs, 600 arty pcs (MoD, 2014r) 2. AAA, 41. AAA (35 MRB); 28 MRB (MD asset) C2 and start OP for 98 ABDiv, 31 ABB S=500 + 20 vehicles airborne landing at Chebarkul Exarea 2. AFADC, VTA C2: VDV 38 Sign Reg, CGS Signal Dept; CO Ground Forces to "control" 2. 41. Army (C2-functions) incl deploy field HQ (MoD, 2014q) 8 helicopter borne command posts gave MOVCON support to Ground Forces (MoD, 2014r)	Ground Forces Army aviation Arty Air Force (MoD, 2014t)	
12. Southern MD 26 JUN (MoD, 2014s)	CBRN unit – deploy field decontamination facility	Volgograd region	S=1,200 Southern MD		
13. RVSN 7–12 JUL (MoD, 2014u)	Core role tasks	Irkutsk	29. Missile Division incl. spt units	RVSN	

Military District; service arm/branch, start date	Stated aim and nature	AOO	Scope *Mass* S=servicemen V=vehicles	Professionalism	
				All arms	Inter-service
14. Eastern MD 11 JUL (MoD, 2014u2)	ReadinEX C2	Ulan-Ude 36. Army	S=9,000 4,000 pcs of equipment		
15. Eastern MD 6 AUG (MoD, 2014w)	Fast [strategic] transport of Ground Forces (by air/sea/rail) & aircraft	North-east parts (Sakhalin, Kamchatka)	Ground attack: Su-24 Fighter: Su-27, Su-30, Su-35 Transport: An-124, An-12	Army Air Force VTA	
16. AD BN 21 AUG (MoD, 2014v)	Core role tasks	Sakhalin	Подразделение i.e. bn-size, probably AD Bn of 39 MRB		
17. Eastern MD 9 SEP (MoD, 2014x)	Coastal Defence Forces and Air Force; defending coast C2 Group of Forces	Kamchatka	S=1,500 40 a-c/helo 20 ships MiG-31, Su-24, Su-35, Tu-142, Il-38; Mi-8AMTsh		3 AFADC PACFLEET
18. Eastern MD 12–18 SEP (MoD, 2014y; MoD, 2014z)	Verifying transport/ deployability as well as units' core role capability in unknown terrain; assess commanders and staff; mobility	Eastern MD	S=100,000 S=160,000 (Tikhonov, 2014a) MBTs, MR, AD missile, arty Transport rail, air, road Navy: surface ships, submarines C2: Eastern MD 5 all-arms formations, 3 AFADC, commands of VTA and DA	Army Air Force	

Appendix 7 Abbreviations

AAA	All Arms Army (also Combined Arms Army)
AAReg	Air Assault Regiment
ABB	Airborne Brigade
ABDiv	Airborne Division
a-c	aircraft
AD	Air Defence
AF & ADC	Air Force and Air Defence Command
AIFV	armoured infantry fighting vehicle
AOO	area of operations
APC	armoured personnel carrier
AR	Armenia
arty	artillery
Bde	Brigade
BF	Russian Baltic Fleet (Baltiiskii Flot)
Bn	Battalion
BTG	Battalion Tactical Group
BY	Belarus
C2	command and control
CBRN	chemical, biological, radiological and nuclear
CGS	Chief of the General Staff. The president is commander in chief.
ChMF	Russian Black Sea Fleet (Chernomorskii Flot)
CIS	Commonwealth of Independent States
CO	commanding officer
CORF	Collective Operational Reaction Forces (KCOP, Kollektivnye Sily Operativnogo Reagirovaniia) CSTO force built around Russia's 98th ABDiv
COY	Company
CPX	Command-post exercise
CSBM	confidence- and security-building measure
CSTO	Collective Security Treaty Organization
DA	Strategic Bomber Aviation (Dalnaia Aviatsiia)
Def	defence
EW	electronic warfare
EX	exercise
Fcs	forces
FSB	State Security Service (Federalnaia Sluzhba Bezopasnosti)
FSIN	Federal Penitentiary Service of Russia (Federalnaia Sluzhba Ispolneniia Nakazanii)

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FSB	State Security Service (Federalnaia Sluzhba Bezopasnosti)
FSIN	Federal Penitentiary Service of Russia (Federalnaia Sluzhba Ispolneniia Nakazanii)

FSKN	Federal Drug Control Service of the Russian Federation (Federalnaia Sluzhba Rossiiskoi Federatsii po kontroliu za oborotom narkotikov)
FSO	Federal Protection Service of the Russian Federation (Federalnaia Sluzhba Okhrany)
helo	helicopter
Inf	Infantry
INSP EX	inspection exercise
JSC	Joint Strategic Command
KY	Kyrgyzstan
KZ	Kazakhstan
MBT	main battle tank
MChS	Emergencies Ministry (Ministerstvo Cherezvychainykh Situatsii) a.k.a. EMERCOM “Emergency Control Ministry”, formally Ministry of the Russian Federation for Affairs for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters
MD	Military District
MLRS	multiple-launch rocket system
MN	Mongolia
MOVCON	movement control
MRB	Motor Rifle Brigade
MTA	Military Transport Aviation (see also VTA below)
MTO	Combat Support Service (Materialno-tekhnicheskoe obespechenie)
MVD	Interior Ministry (Ministerstvo Vnutrennykh Del)
N/A	not applicable
OPFOR	opposing force (in exercises)
PARAL EX	parallel exercise (s)
pcs	pieces
ReadinEX	Readiness Inspection Exercise
RF	Russian Federation
RGF	Regional Group of Forces
RU	Russian
RVSN	Strategic Missile Forces (Raketnye voiska strategicheskogo naznacheniia)
SA	surface-to-air (missile)
SF	Special Forces
Sign Reg	Signal Regiment
SS	surface-to-surface (missile)
TJ	Tajikistan
TOF	Russian Pacific Fleet (Tikhookeanskii Flot)
UKR	Ukraine
VDV	Russian Airborne Forces (Vozdushno Desantnye Voiska)

VKO	Aerospace Defence Forces (Voiska Vozdushno-Kosmicheskoi Oborony)
VTA	Military Transport Aviation (Voenno-transportnaia aviatstiia)
WMD	weapon of mass destruction
x-missile	cruise missile

Appendix 8 Selected glossary

Russian military terminology in 2015 was comprehensive and elaborate. It differed from Western concepts and was subject to both military and judicial debate, all deserving a study in itself. The assumption in this study was that definitions available from official sources reflected those actually in use in the Armed Forces. The terms below are not full or exact translations but rather summarising interpretations of the official definitions to make them usable in this study. Further analytical work is required to facilitate an in-depth understanding of these definitions.
The Russian MoD's Military Encyclopaedia (http://encyclopedia.mil.ru/encyclopedia/dictionary/list.htm) defined many military terms mentioned below. In one case, Russia's Military Doctrine 2014 provided the definition.

Military power [of a state][33] (*voennaia moshch*)	A state's ability to indirectly influence other states and international relations (through the demonstration of what it can do) or the direct use of armed force and the successful waging of armed combat; the quantity and quality of its collective resources (territory, population as well as material, human and natural resources); its level of scientific, social and economic development; and the character and content of the [state's] policy to mobilise these abilities for military needs. Military power is embodied by the military organisation of the state [and] the fighting power of the armed forces.
Fighting power [of a state's forces][34] (*boevaia moshch*)	The most important part of a state's military power, the total of material and combat morale factors defining the state of the armed forces and their operational capability to execute the missions assigned to them. Fighting power is defined by the: i) the quantity and quality of the composition of the Armed Forces ii) forces' manning, training and equipment levels as well as their combat readiness and combat capability iii) the quality of commanders iv) the effectiveness of command and control systems v) the development of military art. The fighting power directly or indirectly depends on the state's economic might, politics and military doctrine.

[33] http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=4337@morfDictionary (26 OCT)
[34] http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=3456@morfDictionary (26 OCT)

Combat capability [of a unit][35] (*boevaia sposobnost*)	The condition of forces characterises their ability to carry out successful combat actions in accordance with their designation in any environments as well as realising their combat abilities. The level of combat capability of all-arms formations and units reflects the estimated degree to which they can realise their combat ability and is estimated at four levels: i) combat-capable (having at least 75 per cent of the organisational structure combat-capable) ii) limited combat-capable (50–75 per cent) iii) partly combat-capable (30–50 per cent) iv) not combat-capable (less than 30 per cent) The massive use of fire support weapons can significantly reduce the combat capability of a unit.
[Russia's] military organisation[36] (*voennaia organizatsiia*)	All ministries, agencies and organisations working with Russia's military security, i.e. not only the Armed Forces but also several other ministries and agencies and the defence industry. The totality of: i) the state and military command organs ii) Russia's Armed Forces, other forces, military formations and organs, formations especially set up in times of war (hereafter the Armed Forces, other forces and organs) that make up its [the Military Organisation's] foundation and carry out their activities with military methods iii) the country's defence-industrial complex iv) their joint activities aimed to prepare for the armed defence of and the [actual] armed defence of the country.
Branch of service[37] (*vid vooruzhennykh sil*)	A component of the armed forces designated for waging military action in a specific sphere: on land, at sea or in the air. Each branch consists of arms of service, special units and support units. In 2015, Russia's Armed Forces had three branches of service: the Ground Forces, the Navy and the Aerospace Forces (the latter was the result of a merger in August 2015 between the Air Force and the independent arm of service Aerospace Defence Forces).

[35] http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=3465@morfDictionary (26 OCT)
[36] Military Doctrine, 2014 para. 8k
[37] http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=4218@morfDictionary (25 OCT)

Arm of service[38] (*rod voisk* in the Ground Forces and the Aerospace Forces; *rod sil* in the Navy)	A component of a branch of service or of the Armed Forces (independent arm of service) that has unique types of military equipment and ways to wage combat. Ground Forces: Motor Rifle, tanks, Rocket Forces and Artillery (Ground Forces) and Air Defence. Air Force: Air forces according to designation: frontal, army, transport and long-range bomber aviation with the following arms of service: bomber, fighter, ground attack transport and special units. Navy: surface and underwater forces, the Naval Aviation and the Coastal Defence Forces. Independent arms of service: Airborne Forces and Strategic Missile Forces.

[38] http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=12348@morfDictionary (25 OCT)

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“Train hard, fight easy.” The Russian 18th century General Aleksandr Vasilievich Suvorov (see cover) is said to never have lost a battle. The main idea of his dictum is clear. Armed forces train to fight. The more they train, the better they get. Exercises are primarily a way to develop capabilities in units, build the fighting power of a force and, ultimately, the military power of the state.

How did military exercises contribute to the fighting power of Russia’s Armed Forces in 2011 – 2014? Based on reporting in Russian open sources, the main conclusion in this report is that the Russian Armed Forces exercises enabled them to train how to launch and fight large-scale joint inter-service operations, i.e. launching and waging inter-state wars

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