





Russian Forces in the Southern Military District

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Abstract

In this CNA Occasional Paper, Konrad Muzyka provides an in-depth assessment of Russia's Southern Military District, which consists of robust forces spanning the North Caucasus region, along with Rostov, Volgograd, Stravropol, Dagestan, and Crimea. Muzyka's analysis provides an up-to-date overview of the current force structure and posture of this military district, which has greatly expanded since 2013. These forces include the 8th, 49th, and 58th Combined Arms Armies, the 4th Air and Air Defense Army, the Black Sea Fleet, and the Caspian Flotilla. Muzyka also discusses the Russian threat perspectives which drive force posture changes in the Southern Military District, with contingencies that include Georgia, Ukraine, NATO in the Black Sea, and terrorism in the Caucasus.

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Executive Summary

This paper draws on open source material to provide an order-of-battle assessment of existing units that fall under the Southern Military District's (SMD's) area of responsibility. It analyzes roles assigned to these units and assesses the effects of the ongoing modernization and reorganization of the SMD's structures post 2014. This analysis is placed within the context of Russian military operations in Georgia, Ukraine, and Syria.

Russian forces that are deployed within the district need to address a gamut of threats and contingencies, ranging from peacekeeping missions and counterinsurgency operations, through local wars, to high-tempo conventional operations against technologically superior opposing forces. This is reflected in the structures of these units, which, overall, differ significantly from those deployed in the Western Military District (WMD).

As a result, the paper looks at Russian military presence not only in Russia proper, but also in Armenia, South Ossetia, and Abkhazia.

Although the document lists equipment that is fielded into specific units, it does not seek to provide a detailed table of organization and equipment (TO&E).

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Introduction

In March and April 2021 Russian forces in the Southern Military District (SMD) were put on alert and deployed into nearby training areas. They were additionally supported by numerous airborne forces sent to Crimea and units from the Central Military District's 41st Combined Arms Army (CAA). Given these reinforcements and already established garrisons, the Russian presence near the borders with Ukraine has never been larger. Even at the height of Russian combat operations in 2014, Moscow had around 42,000 personnel rotating in the vicinity of Ukraine. Today, the 20th CAA and the 8th CAA alone field some 35,000-38,000 troops that are likely in a higher readiness status than other armies in the region. From a force prepositioning point of view, the focus on Ukraine is clear. So is Moscow's determination to ensure that Donbas remains under Russian control and that, if needed, this operational direction can be quickly reinforced with other units. Indeed, the scale and pace of Russian troop movements and deployments in early 2021 were unprecedented.

This is a result of complex, wide-ranging, and sometimes painful, reforms undertaken since 2013. The Russian armed forces, in general, and in the SMD specifically, have never been more capable and able to undertake a range of missions across the entire spectrum of military operations. Expansion of the SMD's order of battle has created some gaps in open-source materials on the existing force structure of units located within the district. This paper seeks to fill those gaps and present the most current assessment of the Russian forces that defend the country's southwestern borders.

In 2013 Russia fielded two CAAs in the SMD that were primarily tasked with deterring Georgia and responding to terrorism activities originating in the Caucasus. The border with Ukraine was largely unprotected, and the size of the Russian contingent in Crimea was limited by the 1997 agreement between the two countries. The events of 2014 facilitated deep changes in Russian posturing and forced the establishment of new operational-level formations on Ukraine's doorstep. These reforms are not yet complete. The force structure continues to undergo expansion. Conversion of the 19th Motor Rifle Brigade into a division in 2020 and plans for a similar enlargement of the 136th and 20th Motor Rifle Brigades confirm the focus on largescale combat operations, with limited capability to tackle terrorist threats.

This study offers an up-to-date assessment of the Russian force posture and structure in the Southern Military District. In doing so, it will present an analysis of the 8th, the 49th, and the 58th Combined Arms Armies, units directly under the MD command, and airborne and special

¹ Igor Sutyagin, Russian Forces in Ukraine, Briefing Paper, Royal United Services Institute, Mar. 2015, https://rusi.org/sites/default/files/201503_bp_russian_forces_in_ukraine.pdf, p. 4.

forces. Next, the paper will analyze assets belonging to the 4th Air and Air Defense Army, which is tasked with air defense duties over Southern Russia. Then, the analysis will focus on the Russian forces deployed to Crimea, which play a key role in the Black Sea basin and beyond. Lastly, the study will analyze the structure of units under the command of the Caspian Flotilla.

Methodology

Data on locations of military bases and units were obtained from a variety of Russian open sources. These included business registries, regional and city-level news outlets, Russian Orthodox Church websites, regional eparchies (in particular), and the registry of trial proceedings. To confirm unit identity and subordination, we used an analysis of badges and insignia worn on soldiers' sleeves or displayed at military events.

Information about maintenance work on power grids, water, and sewage systems also provided high-quality confirmation about the location of military units, as did tenders for planned construction works at military facilities. Another source was regional enlistment offices, which publish information about units that require contract service members; these provided the unit number and the name of the city where the unit is based.

Google Street View, and its Russian equivalent, Yandex Panoramas, also provided recent views of military facilities, predominantly in urban areas, which helped pinpoint the location of military bases and facilities.

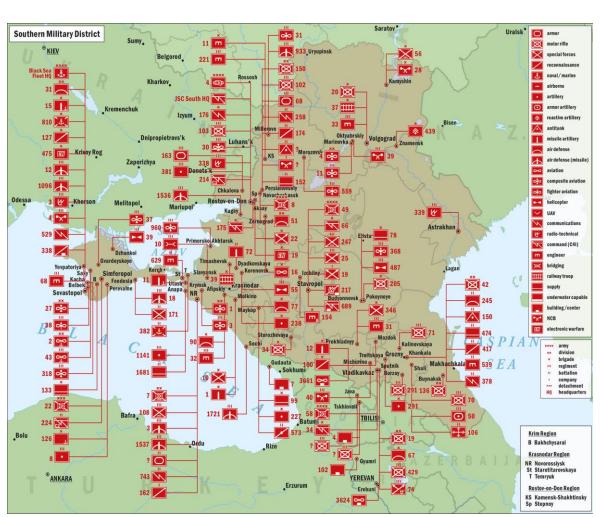
Finally, every location was checked using commercially available satellite imagery, to confirm whether there was any movement within bases and thus whether the base was still "active."

All this helped confirm the existence of around 200 units and subunits in the SMD. This number excludes military storage facilities, Strategic Rocket Forces' bases, and units belonging to Long-Range and Military Transport Aviation, which, because of their capabilities and ranges, can conduct operations across the entire country.

The Southern Military District: An **Overview**

As a consequence of the military operations in Crimea and Eastern Ukraine, Russia's Southern Military District has undergone significant expansion coupled with deep structural and organizational reforms. Figure 1 shows the SMD.

The Southern Military District Figure 1.



Source: Author's findings. All maps designed by Paweł Wawrzkiewicz.

The SMD is a high-risk district. Although it is the smallest of all the military districts, its forces need to be ready to address a gamut of threats across different spectrums. These include counterterrorism operations in the Caucasus; high-tempo combined-arms operations against Georgia, Ukraine, and NATO in the Black Sea; and protection of Russian interests in the Mediterranean through the deployment of naval task force groups.

To fulfil this task, in the SMD Russia fields three combined-arms armies that can conduct selfsustaining operations in their areas of responsibility (AORs). In terms of echelonment, an army group is an intermediate organizational structure between the Joint Strategic Command (JSC)/ military district command on the one end, and brigades/regiments on the other.

The 8th Combined Arms Army was established in 2016-17 and is the newest addition to the land forces' combat potential.² Militarily, its task is to deter Ukraine from taking any wide-scale military actions to retake the Donbas. Offensively, the 8th CAA's forces are prepositioned to undertake operations in the direction of the Luhansk and Donetsk People's Republics (LPR and DPR, respectively) or along the Ukrainian coast to the Crimean Peninsula. In this, they cover the eastern and southeastern parts of Ukraine, whereas the WMD's 20th CAA directly threatens the northern and northeastern parts of the country.

Farther south is the 49th CAA, which is a coastal defense force that protects Russia's proper Black Sea coast from any invasion forces. Within its structures is the 7th Military Base in Abkhazia, which means that the 49th CAA would reinforce this area and conduct operations in this direction, should hostilities against Georgia break out. The CAA also commands the 34th Mountain Motor Rifle Brigade, which is specifically designed to conduct operations in mountainous areas of the North Caucasus. Focus on counterterrorism activities is also confirmed by the existence of a Spetsnaz regiment within the 49th CAA order of battle.

The eastern parts of the Northern Caucasus are covered by the 58th CAA. The army's responsibilities range from conducting counterterrorism operations in Dagestan and Chechnya to protecting Russian military presence in occupied South Ossetia (4th Military Base) and undertaking maneuver warfare against the Georgian Armed Forces. In 2020 the 58th CAA's 19th Motor Rifle Brigade was upgraded to the 19th Motor Rifle Division with plans for the 136th Motor Rifle Brigade to undergo a similar conversion. As a result, the 58th CAA will no longer field any combined-arms brigades, thus reiterating the focus on delivering an abundance of power across the SMD, against either Georgia or Ukraine.

² Алексей Рамм Евгений Андреев, В Южном военном округе появится новая армия, Известия, 17 Mar. 2017 https://iz.ru/news/670561.

On top of these army groups, additional ground combat and support formations are subordinated directly to the district's commander. These include electronic warfare, Spetsnaz formations, railway formations, and the 102nd Military Base in Gyumri, Armenia.

The SMD also features the 7th Air Assault Division. The unit is based around Novorossiysk, although some of its elements are also deployed in Stavropol and Crimea. Another airborne formation, the 56th Air Assault Brigade from Kamyshin, was recently downgraded to a regiment-level formation and diverted into Feodosia in Crimea, where it will form a regiment subordinated to the 7th Air Assault Division.

The 4th Air and Air Defense Army commands three aviation divisions in the SMD and all army aviation brigades and regiments deployed in the district. Air defense coverage is exercised through two divisions, which are primarily tasked with defending Rostov-on-Don, coastal areas, and Crimea.

On the peninsula, Russia maintains the Black Sea Fleet (BSF), which has also been reorganized and expanded since 2014. Not only has the fleet grown vastly in size, but the quality of surface and subsurface vessels has significantly improved, making the BSF the "youngest" and most modern fleet within the Russian Navy. This growth of Russian components in Crimea also included ground elements, which are centered around the BSF-subordinated 22nd Army Corps.

Lastly, the Caspian Flotilla is also under the command of the JSC South. This is the smallest naval component of the Russian Navy. In recent years, its capabilities also have been strengthened with the addition of new surface combatants, antiship missiles, and a naval infantry regiment that can undertake limited expeditionary operations around the Caspian.

The 8th Combined Arms Army

The events of 2014 resulted in Russia having an openly hostile neighbor on its southwestern border. The Ukrainian direction was consequently reinforced using two CAAs. The northern border is "covered" by the WMD-subordinated 20th CAA, whereas the western one, adjacent to the Luhansk and Donetsk Oblasts in Ukraine, is the responsibility of the 8th Combined Arms Army. Figure 2 shows the locations of the 8th Combined Arms Army units.

8th Combined Arms Army Slovyansk Lysychans'k 102 Volgograd Kramatorsk* Morozovsk Donets'k Oktyabrskiy Shakhty Kotelnikovo_ Volgodonsk Rostov-on-Don Taganrog 163rd Tank Regiment Chkalova Mariupol' **381st Artillery Regiment 5** 103 Dyadkovskaya 72nd Independent Missile Divizion Kamensk-Shakhtinsky | 221st Engineer-Sapper Battalion Berdyans'k Yeysk_ Proletar Korenovsk | 238th Artillery Brigade Dolzhanskaya Millerovo 933rd Air Defense Regiment Salsk SEA Novocherkassk 8th Combined Arms Army HQ Oktyabrskiy | 39th NCB Regiment | Sta 150th Motor Rifle Division 102nd Motor Rifle Regiment Primorsko-Akhtarsk **68th Tank Regiment** AZOV 258th Communications Battalion Tikhoretsk Persianovskiy 174th Reconnaissance Battalion 152nd Logistics Battalion Anti-tank Battalion Dvadkovskava **NCB Company** Rostov-on-Don | 103rd Motor Rifle Regiment Kuchugury Izobilny. 20th Motor Rifle Brigade Temryuk Volgograd Taman 33rd Engineer-Sapper Regiment Starotitarovskaya

Figure 2. Units subordinated to the 8th Combined Arms Army

Source: Author's findings.

The latter was likely created in 2016, although the first reports on its establishment appeared in early 2017.3 The main task of the army is to deter Ukraine from undertaking any military operations that would seek to retake the Donbas. At the same time, the unit can undertake limited offensive operations against Ukrainian forces. Its potential would need to be significantly strengthened to allow for wide-scale operations against Ukraine: not only is the latter's presence near the occupied territories already quite substantial,4 but the mobilization potential of the Ukrainian armed forces allows for quick redeployment of troops and reinforcement of threatened areas.

The core of the 8th CAA is deployed around Rostov-on-Don and Novocherkassk (HQ), although some of its elements are located as far away as Volgograd and Znamensk. The army's combat potential rests on the 150th Motor Rifle Division. The unit was developed from the 33rd Motor Rifle Brigade (Mountain), which was previously stationed in Maykop and was subordinated to the 49th CAA. In 2015 the brigade moved to Novocherkassk⁵ and was used as a basis for the creation of the 150th MRD.

The division maneuver units consist of six regiments, which means that the 150 MRD is fully developed. It fields the 102nd and 103rd Motor Rifle Regiments (located in Persianovskiy and Rostov-on-Don, respectively) and the 68th and 163rd Tank Regiments (Persianovskiy and Chkalova). These are supported by the 933rd Air Defense Regiment (Millerovo) and the 381st Artillery Regiment (Chkalova).

The division also has several combat and logistics support units, which include the 221st Engineer-Sapper Battalion (Kamensk-Shakhtinsky), 258th Communications Battalion (Persianovskiy), 174th Reconnaissance Battalion (Persianovskiy), and the 152nd Logistics Battalion (Persianovskiy).

As clearly seen in Figure 3, many assets are under the 150th MRD's command station in Persianovskiy, 12 km (7 miles) north of Novocherkassk. The base was built from scratch between late 2015/early 2016 and late 2017. The pace of construction—which was remarkable compared to other infrastructure projects—indicated a sense of urgency.6

³ In Russia, typically the first media reports on new units occur when they had already been activated.

⁴ Approximately four motorized, one tank, one artillery and two airmobile brigades.

⁵ Bloknot-novocherkassk.ru, В Новочеркасск из Майкопа переведена 33-я горная мотострелковая бригада, 24 March 2015, bloknot-novocherkassk.ru/news/v-novocherkassk-iz-maykopa-perevedena-33-ya-gornaya-587886.

⁶ To compare, the air base in Chkalovsk, Kaliningrad Oblast, underwent modernization for seven years. Closer to Ukraine, Voronezh Malshevo Air Base underwent a similar upgrade, which also took seven years.

Persianovskiy, 150th Motor Rifle Division

Figure 3. The main base of the 8th CAA in Persianovskiy

Source: Includes material © CNES 2021, Distribution Airbus DS all rights reserved / PLEIADES satellite imagery. Acquired through ShadowBreak Intl; Image date: 6 April 2021.

Each large shelter can accommodate 64 vehicles, which gives a total of 576 vehicles for shelters seen in the image above. However, many armored vehicles are parked in open spaces, which can further hold approximately 900 vehicles. There is certainly enough space within Persianovskiy for additional reinforcements.

The base is also located near a road and a rail line, both of which run in the north-south direction. This allows the division to be deployed through Shakhty straight into the LPR or through Rostov-on-Don, farther south, to DPR. Alternatively, a disembarkment in Taganrog would indicate a possible move against Ukraine's Mariupol.

For maneuver operations, apart from the 150th MRD, the 8th CAA also fields the Volgogradbased 20th Motor Rifle Brigade.7 The brigade provides additional flexibility to the army's commander. Given that the brigade is "heavy," it is predisposed to undertake high-tempo

⁷ The brigade is earmarked for a conversion into a mechanized division. Роман Крецул, Алексей Рамм, А теперь «20-я»: легендарное гвардейское соединение вернется в строй, Известия, 25 Apr. 2021.

⁸ It fields one T-90 and three BMP-3 battalions.

operations in support of the 150th MRD operations, for instance, as a motor rifle reserve. At the same time, given the firepower the brigade can deliver, it can also conduct independent operations along small frontage where speed and decisiveness are crucial to achieving a breakthrough of enemy lines.

According to Lieutenant-General Leonid Holopatiuk, Chief of Main Department of Military Cooperation and Verification of the Armed Forces of Ukraine, the 8th CAA operationally controls the 1st and 2nd Army Corps, which are deployed in LPR and DPR. Altogether they field 35,000 personnel, 481 tanks, 914 armored vehicles, 720 artillery systems, and 202 multiple launch rocket systems (MLRSs)⁹ (although this is probably an overestimate of the actual strength of the LPR and DPR forces).

As already stated, whereas the composition of maneuver units within the structures of an army group varies depending on where they are deployed, the composition of support units is more predictable. Each CAA fields a nuclear, chemical, biological (NCB) defense regiment; an engineer-sapper regiment; and other brigade-level formations (air defense, artillery, missile brigade, and logistics).

It seems that the composition of combat units fielded within the CAA took its final form and that no additional units will be stood up. However, the structure of support units is less clear.

The 39th NCB Defense Regiment is in Oktyabrskiy.¹⁰ The unit provides army-level CBRN protection for operational forces, but it can also take an active part in offensive and defensive operations through the use of its flamethrower elements. In particular, the regiment fields the TOS-1A Solntsepek heavy flamethrowers equipped with 24 thermobaric munitions that can effectively engage targets at 6,000 meters and can cover an area of up to 10 acres. It is used to soften up fortified positions and manpower, and create gaps in the frontlines that could be exploited by tank and motor rifle units.

In late 2019, the 33rd Engineer-Sapper Regiment was formed in Volgograd. ¹¹ The 238th Artillery Brigade was established in Korenovsk around the same time, but information about its structure, and even about the equipment it fields, is scarce.¹²

⁹ OSCE, Presentation by Leonid Holopatiuk, Chief of Main Department of Military Cooperation and Verification of the Armed Forces of Ukraine, 6 July 2020, https://www.osce.org/files/f/documents/5/0/457468.pdf, p. 2.

¹⁰ v102.ru, Волгоградские срочники отмечают День именинника в кругу сослуживцев, 15 Sept. 2020, https://v102.ru/news/91036.html.

¹¹ Виктория Рындина, «Можем стать новыми участниками парада»: Волгограду показали новый полк сапёров, 21 Jan. 2020, https://v1.ru/text/gorod/2020/01/25/66462226/.

¹² Korenovsk.ru, Вновь формируемое артиллерийское соединение, дислоцированное в Кореновском районе, приглашает граждан в возрасте от 18 до 35 лет на военную службу по контракту. 18 Aug. 2020,

When speaking to Krasnaya Zvezda in March 2019, the Commander of SMD, Colonel General Aleksandr Dvornikov,¹³ stated that a new missile brigade had been set up in the SMD.¹⁴ As the 8th CAA was the sole army group lacking short-range ballistic missile capability, the new unit was likely placed under its command. However, it is unclear what designation the unit has or where it is located. The Moscow-based Centre for Analysis of Strategies and Technologies (CAST) suggested that this could pertain to the 464th Missile Brigade that was stationed in Znamensk in 2009 before being disbanded. 15 Although assigning this designation would follow the standard Russian practice of reviving previously demobilized units, there is no information available in open sources that confirms the revival of the 464th Missile Brigade. That said, according to an announcement posted on the Andropov Municipal District's website, the 72nd Independent Missile Battalion (отдельный ракетный дивизион: ордн), belonging to the 8th CAA, is located in the city of Dyadkovskaya, Krasnodar Territory. If this is correct, it is likely that the brigade will also be deployed therein.¹⁶

Concurrently, the 8th CAA still lacks an air defense brigade that would provide army-level protection of its ground components. Although there were reports that a new air defense brigade would be stood up in the SMD, it is not clear whether this plan materialized.¹⁷

Lastly, to fully support its constituent units, the CAA should also field a logistics brigade. However, here again, no information is available about the existence of such a brigade within the 8th CAA—although it is likely that such a brigade is operational given the roles assigned to the army.

[/]http://www.korenovsk.ru/vnov-formiruemoe-artillerijskoe-soedinenie-dislocirovannoe-v-korenovskom-rajonepriglashaet-grazhdan-v-vozraste-ot-18-do-35-let-na-voennuju-sluzhbu-po-kontraktu.

¹³ Promoted to Army General in June 2020.

¹⁴ Юрий Бородин, Южные рубежи России надёжно защищены, Красная звезда, 18 Mar. 2018, http://redstar.ru/yuzhnye-rubezhi-rossii-nadyozhno-zashhishheny.

¹⁵ Центр АСТ, В Южном военном округе сформирована новая ракетная бригада, 19 Mar. 2019, https://bmpd.livejournal.com/3574400.html.

¹⁶ Vodorazdel-adm.ru, «О порядке комплектования в 2019 году соединений и воинских частей военного округа, других войск, воинских формирований и органов военнослужащими, проходящими военную службу по контракту», https://tinyurl.com/3uaytwda.

¹⁷ Тасс, Артиллерийская и ракетная бригады войдут в 8-ю гвардейскую армию на юге РФ, Тасс , 8 Арг. 2018, https://tass.ru/armiya-i-opk/4166105.

The 49th Combined Arms Army

The 49th CAA's order of battle is more robust, at least on paper, which could be explained not only by its age (it was created in 2010), but also by the different threats it is tasked with addressing. Figure 4 shows the locations of the 49th Combined Arms Army units.

0 20 49th Combined Arms Army Krasnodar Armavir Afipskiy Kurganinsk Molking Belorechensk Maykop Labinsk Zelenokumsk Otradnaya. Mineralnye Vody Cherkessk Tuapse Pyatigorsk Kislovodsk. Afipskiy 90th Air Defense Brigade 32nd Engineer-Sapper Regime Storozhevaya Gudauta | 7th Military Base 34 99th Logistics Brigade 227th Artillery Brigade 573rd Recce Artillery Squadron 1st Missile Brigade Mt Elbrus Pokoynoye | 205th Motor Rifle Brigade Storozhevava 34th Motor Rifle Brigade (Mountain) 49th Combined Arms Army HQ 19th Independent Spetsnaz Compan 217th Radio-Electronic Reconn. Cent 689th Command and Intelligence Cen Sokhumi

Figure 4. Units under the command of the 49th Combined Arms Army

Source: Author's findings.

The 49th Combined Arms Army protects Russia's proper Black Sea coast against any invading forces; it can undertake ground operations to Abkhazia; and its specialized elements can conduct mountain warfare missions in the Caucasus, both against conventional and unconventional opposing forces. That said, to conduct the first two missions, the army would need to be significantly strengthened. In its current shape, the entire 49th CAA is estimated to field just one tank battalion. It also is the smallest of the CAAs in the SMD, because parts of it were diverted to a location near Ukraine to be the nucleus of what later became the 8th CAA.

The HQ of the Army Group is located in Stavropol, and its command is exercised through the 66th Command (C4I) Brigade.

The main maneuver element of the army is the 205th Motor Rifle Brigade from Pokoynoye, north of Budyonnovsk. The brigade fields one tank and three motor rifle battalions. Although the tank battalion has four companies of T-72B3s, the motor rifle battalions consist only of MT-LB multipurpose tracked armored vehicles and several BTR-80s. Its artillery capabilities are more developed and include a mix of BM-21Ms MLRSs and 2S19M2 Msta-S howitzers. The latter type is the newest upgrade to the Msta-S howitzer family. Produced since 2013, it features digital electronic maps and a camouflage system that reduces the thermal footprint of the vehicle. A new automatic fire control system delivers 10 rounds per minute and can engage targets in a simultaneous fire attack mode.18

The 34th Independent Motor Rifle Brigade (Mountain) is located in Storozhevaya in the Caucasus. The unit was established in the mid 2000s, directly at President Putin's orders. This came in response to growing terrorist threats around the Caucasus and the need to strengthen porous southern borders in order to prevent Chechen terrorists and warlords from further infiltrating Russian borders. Therefore, initially, the main role of the brigade was to support the Federal Border Service in controlling the state border, but also to conduct operations against separatists and to protect the civilian population from terrorist attacks.¹⁹ These threats have mostly subsided since then, and so has the role of mountain brigades. Initially, two were established, the 33rd and 34th, under the command of the 49th CAA, but the former was deployed to Novocherkassk to lay the foundations of the 150th Motor Rifle Division.

In terms of heavy equipment, the unit fields mostly MT-LBs for movement in flat terrain and 2S1 Gvozdika SPH for artillery support.²⁰ To support movement in mountainous terrain, the brigade uses horses to carry troops and equipment.21 The brigade has more than 80 horses,

¹⁸ Антон Лавров, Алексей Рамм, Кромешная «Мста»: на юг России придут роботизированные артустановки, Известия, 27 November 2020, https://iz.ru/1092597/anton-lavrov-aleksei-ramm/kromeshnaiamsta-na-iug-rossii-pridut-robotizirovannye-artustanovki.

¹⁹ C W Blandy, North Caucasus: Advent of Mountain Brigades, Defence Academy of the United Kingdom, Advanced Research and Assessment Group, 07/35, Nov. 2007, pp. 1-3, https://www.files.ethz.ch/isn/87737/07_nov.pdf.

²⁰ Архыз 24, Горная мотострелковая бригада в КЧР в свой юбилей продемонстрировала гостям праздника боевую технику, 22 June 2020, https://www.youtube.com/watch?v=NkAJ $eQc4wU\&ab_channel=\%D0\%90\%D1\%80\%D1\%85\%D1\%8B\%D0\%B724.$

²¹ Алексей Рафаенко, 34-я горная. Часовой. Выпуск от 08.04.2018, 8 Apr. 2018, https://www.1tv.ru/shows/chasovoy/vypuski/34-ya-gornaya-chasovoy-vypusk-ot-08-04-2018.

which form "pack-transport platoons." Horses are divided into bundles of four, which together can carry around 300 kg of cargo.²²

In 2015 the 90th Air Defense Brigade was established to provide army-level air defense coverage.²³ The unit was initially equipped with the 9K317 Buk-M2, although press reports from mid 2020 suggested that the unit will be converted to carry the 9K317M Buk-M3. The brigade is stationed in Afipskiy and is the westernmost unit within the 49th CAA. The unit is near a rail line that ultimately leads to the Kerch Strait. Therefore, apart from its notional role of defending coastal areas, the 90th Air Defense Brigade also can be used to reinforce Russian units in Crimea.

Another new addition to the 49th CAA order of battle is the 227th Artillery Brigade, deployed south of Maykop. The brigade was dissolved in 2009 on the wave of Serdyukov's reforms but was reinstated in December 2016 to provide the army group with additional artillery support.²⁴ The brigade is predominately equipped with towed howitzers, such as 2A65 Msta-Bs and D-30s. It also fields BM-27 Uragan MLRSs and 2S19M2 Msta-S SPHs.²⁵

In terms of short-range missile support, the 49th CAA fields the 1st Missile Brigade in Molkino. The brigade was converted from Tochka-U to the OTRK operational-tactical missile system (Operativno-Takticheskiy Raketnyy Kompleks-OTRK) Iskander in 2011. The Iskander is designed to engage high-value targets at a range of up to 500 km, although the introduction of a new missile has reportedly increased the range of the system beyond the INF-mandated range.²⁶ Iskanders are designed for deep-strike operations against stationary and movable targets, such as SAM and ballistic missile sites, air bases, ports, command and control (C2) facilities, factories, and hardened targets. A standard Iskander brigade comprises 12 launchers and 12 transport-loading vehicles; this translates to three battalions, each with two batteries.

²² Mil.ru, В горной бригаде Южного военного округа в Карачаево-Черкесии подготовили лошадей к зимнему периоду обучения, Министерство обороны Российской Федерации, 10 Nov. 2020, https://function.mil.ru/news_page/country/more.htm?id=12323697@egNews.

²³ Центр АСТ, Новая зенитная ракетная бригада в Южном военном округе, 20 Мау 2016, https://bmpd.livejournal.com/1911770.html.

²⁴ Тасс, Южный прицел: как служат в легендарной артиллерийской бригаде в Адыгее, Тасс, 1 June 2016, https://tass.ru/armiya-i-opk/4274521.

²⁵ Ольга Сухова, На Кубани прошли гаубичные дуэли, Комсомольская правда, 21 March 2020, https://www.kuban.kp.ru/daily/27107.7/4181578/.

²⁶ Missile Defense Project, "SS-26 Iskander," Missile Threat, Center for Strategic and International Studies, Sept. 27, 2016, last modified Dec. 19, 2019, https://missilethreat.csis.org/missile/ss-26-2/.

In terms of combat support, the army group can rely on the 99th Logistics Brigade (Maykop), 14th NCB Regiment (unidentified location and designation)²⁷ and the 32nd Engineer-Sapper Regiment (Afipskiy).

The 49th CAA also controls the 7th Military Base, located in Gudauta, Abkhazia. The unit fields one T-72B3 battalion, at least two BTR-82AM battalions, and some BMP-3s.^{28,29} It thus has a mixed structure of heavy and light assets that can be sealifted for expeditionary missions. Operationally, as evidenced by the 2008 war with Georgia, the units subordinated to the 7th Military Base can undertake amphibious operations on the Georgian coast to create a new front and open up new axes of advance. Units under the command of the 7th Military Base are on "constant combat duty" and undergo "enhanced combat training."30

Given the scope of threats that Russian forces in the SMD need to address, the Army Group also commands at least three special forces and intelligence-driven units. First is the 217th Independent Electronic Intelligence Centre, which is tasked with conducting SIGINT operations within the 49th CAA AOR. Second is the 689th Command and Intelligence Centre, which coordinates all intelligence activities conducted in the southwestern parts of the SMD. Third is the 19th Independent Spetsnaz Company, which was stood up in 2017. This development follows a coordinated plan to establish special forces companies within each land force's CAA. In contrast to reconnaissance brigades, which conduct long-range, deep reconnaissance in support of army group or district-level operations, independent reconnaissance companies are trained to conduct assault actions, such as raids and ambushes closer to the front line. 31

²⁷ Интерфакс АВН, Новый полк РХБ защиты вошел в состав общевойсковой армии ЮВО на Кубани и Северном Кавказе, Интерфакс АВН, 13 May 2021, https://www.militarynews.ru/story.asp?rid=1&nid=549976&lang=RU.

²⁸ Александр Пинчук, Александр Тихонов, СКШУ «Кавказ-2020» – апогей, Красная звезда, 25 Sept. 2020, http://redstar.ru/skshu-kavkaz-2020-apogej/.

²⁹ Владимир Сосницкий, Опора на истинных профессионалов, Красная звезда, 09 Sept. 2020, http://redstar.ru/opora-na-istinnyh-professionalov/.

³⁰ Владимир Сосницкий, Опора на истинных профессионалов, Красная звезда, 09 Sept. 2020, http://redstar.ru/opora-na-istinnyh-professionalov/.

³¹ Алексей Рамм, С «Арбалетом» в глубокий рейд, Независимая газета, 11 Mar. 2021, https://nvo.ng.ru/nvo/2021-03-11/1_1132_crossbow.html.

To provide an additional high-readiness unit in support of the 2014 Sochi Olympics, the 25^{th} Spetsnaz Regiment was stood up in 2011 in Stavropol. It is operationally controlled by the 49th CAA rather than being subordinated to the Main Intelligence Directorate.³²

³² Ольга Самсонова, Губернатор Владимир Владимиров посетил войсковую часть в Ставрополе, Ставгород, 23 Feb. 2019, http://stavgorod.ru/content/novosti/obschestvo/gubernator-vladimir-vladimirov-posetilvoyskovuyu-chast-v-stavropole~121537.

The 58th Combined Arms Army

The final CAA in the Southern Military District is the most robust and capable. The 58th CAA's area of responsibility covers the eastern parts of the Caucasus Ridge. Its elements were heavily involved in the Second Chechen War and spearheaded the Russian offensive against Georgian forces in August 2008. Although the army is located in the North Ossetia, Ingushetia, and Chechnya Republics, which traditionally were the source of terrorist activities in the region, the current force posture and structure indicate that relatively little concern is being paid to this threat. Figure 5 shows the locations of the 58th Combined Arms Army units.

58th Combined Arms Army Budyonnovsk @ Neftekumsk Borzov 291st Motor Rifle Regiment Budyonnovsk 78th Logistics Brigade 136th Motor Rifle Brigade Java Unidentified Motor Rifle Regin Kalinovskaya 71st Motor Rifle Regiment 42nd Motor Rifle Division 245th Air Defense Divizion 150th Anti-tank Squadror 474th Logistics Battallon Zelenokumsk Kochubey Kayasula 539th Enginner-Sapper Battali 378th Communications Battali Terekli-Mekteb Georgiyevsk Michurino **40th NCB Regiment** Prokhladnyy 31st Engineering Regiment 12 245 100 150 19th Motor Rifle Division 67th Air Defense Brigade Sputnik 474 429th Motor Rifle Regin 291st Artillery Brigade 417 4th Military Base Unidentified Motor Rifle Regimen **III** 539 Nalchik 58th Combined Arms Army HQ 34th Command (C4I) Brigade 378 Volgograd | 78th Logistics Brigade Urus-Martan Vladikavkaz 70 Makhachkala **O** 50 136 Khunzakh

Figure 5. Units under the command of the 58th Combined Arms Army

Source: Author's findings.

Main combat elements of the 58th CAA include two motor rifle divisions, a motor rifle brigade, and a military base in Russian-occupied South Ossetia. Consequently, the main focus is on the conduct of combined-arms, high-end operations with quick delivery of the preponderance of power against a conventional opponent. Georgia was perhaps seen as the biggest threat to Russian interests in the region. However, the goal of this heavy force structure in the eastern parts of the Caucasus also serves as a deterrent against growing Turkish presence in the region, especially following the 2020 Azerbaijani offensive against Armenia in the Nagorno-Karabakh.

The main maneuver force of the Army Group rests on the 42nd Motor Rifle Division (HQ Khankala), which was formed in 2016,33 having previously been disbanded in 2008. The division is based in the Chechen Republic. It fields three motor rifle regiments—the 70th, 71st, and 291st—which are stationed in Shali, Kalinovskaya, and Borzoy, respectively. There are no tank regiments within the division. Heavy armor is instead provided by tank battalions within these motor rifle regiments that altogether deploy around 90 T-72B3s MBTs.

Shali also hosts the 50th SPH Artillery Regiment. The 245th Air Defense Battalion³⁴ is stationed in Khankala, where the remaining support battalions of the division are located. They include the 417th Reconnaissance Battalion, 378th Communications Battalion, 539th Engineer-Sapper Battalion, 474th Logistics Battalion, 150th Anti-tank Squadron, and 106th Medical Battalion.

Sometime in 2020, the Sputnik-based 19th Motor Rifle Brigade was converted into the 19th Motor Rifle Division (MRD),35 and its new structures were tested during the Kavkaz-20 strategic-operational exercise in September 2020. The exact composition of the unit is unclear. If previous steps to reactive earlier disbanded subunits are to be followed, the division will comprise three motor rifle regiments³⁶, one artillery regiment, and one air defense regiment. Within the division, at least one motor rifle regiment is now fully stood up, to fulfil missions assigned to the 58th CAA. To support the expansion of the 19th MRD, a new military base in Sunzhensky District (Ingushetia Republic) is to be built, to house a new regiment.³⁷ The pace

³³ Mil.ru, В ЮВО на территории Чечни завершается формирование 42-й мотострелковой дивизии, Министерство обороны Российской Федерации, 7 Dec. 2016, https://function.mil.ru/news_page/country/more.htm?id=12105840@egNews.

³⁴ It fields six Tor-M2 air defense systems. It could have been upgraded to a regiment-level formation. Regnum.ru, Минобороны РФ получило очередной дивизион ЗРК «Тор-M2», Regnum, 18 Oct. 2019, https://regnum.ru/news/2752491.html.

³⁵ Центр АСТ, В Южном военном округе разворачивается 19-я мотострелковая дивизия, 28 Dec. 2020, https://bmpd.livejournal.com/4224045.html.

³⁶ One is possibly the 503rd Motor Rifle Regiment.

³⁷ Редактор, Кремль увеличивает число воинских частей в Ингушетии, Новая Эпоха, 15 Jan. 2019, https://novayaepoxa.com/kreml-uvelichivaet-chislo-voinskikh-cha/281116/.

of reestablishing other subunits will largely depend on the ability of the division to recruit new and retain old personnel.

Additional maneuver flexibility is provided by the 136th Motor Rifle Brigade, which is stationed in Buynaksk.³⁸ The unit is considered "heavy," because it has three BMP-3-equipped battalions supported by one T-90 battalion. This composition suggests that the unit is earmarked for operations in open terrain, where it can maneuver, rather than in mountainous areas of the northern Caucasus. In early 2019, Interfax-AVH reported that the brigade could also be converted into a division; however, as of mid 2021, no information is available to confirm whether the change has occurred.³⁹ Buynaksk is the southernmost city in Dagestan with access to a rail line. From there, the line goes north and leads either to Makhachkala or Kaspyisk on the Caspian Sea or to Grozny in Chechnya. Consequently, the brigade can either support the 42nd MRD or serve as the main combat force defending the Caspian Sea basin.

The command of the 58th CAA is exercised through the 34th C4I Brigade, deployed in Vladikavkaz. The 67th Air Defense Brigade stations are in Sputnik, and the 291st Artillery Brigade is in Troitskaya. Apart from fielding the standard 2S19 Msta-S SPH and BM-27 Urugan MLRS, the artillery brigade also fields 240mm 2S4 Tulipan self-propelled mortars and 203mm 2S7 Pion self-propelled guns. By 2022 Russia plans to conclude a modernization effort that seeks to upgrade the capabilities of both the 2S4 and the 2S7.40 This upgrade likely includes cooperative capability between aircraft, UAVs, and forward observers and artillery systems. Both systems fill the gap that occurred after the Tochka-U SSMs were withdrawn from service (minimum range of 15 km (9 miles)) and will supplement future 152mm 2S35 Coalition selfpropelled gun-howitzers in delivering high-accuracy high-powered artillery rounds.

The army also deploys two units in Mozdok. The 12th Missile Brigade provides the commander with short-range precise strike capability through the Iskander missile system.

The city also hosts the experimental 100th Reconnaissance Brigade, which was set up to test a new TO&E and role for Russian reconnaissance units, partly based on the US Cavalry Scout concept. 41 The unit was also to receive new reconnaissance and radio-electronic warfare

³⁸ Тбс Буйнакск, Открытие зимнего периода обучения в 136-й бригаде // г. Буйнакск, 1 Dec. 2020, https://www.youtube.com/watch?v=RkPCVN7tW68.

³⁹ Интерфакс АВН, Группировку войск на юге РФ усилят ещё две дивизии - источник, Интерфакс АВН, 9 Feb. 2019, https://www.militarynews.ru/story.asp?rid=1&nid=501464&lang=RU.

⁴⁰ Тасс, Российская армия получила одну из самых мощных в мире самоходных пушек после модернизации, Tacc, 16 Apr. 2020, https://tass.ru/armiya-i-opk/8256869.

⁴¹ Алексей Михайлов, Дмитрий Бальбуров, Шойгу предложили расформировать уникальную воинскую часть, Известия, 19 Dec. 2012, https://iz.ru/news/541771.

systems to fulfil its new missions,42 and—what, at that time, was seen as an avant-garde solution—a dedicated helicopter squadron. However, as early as 2012 the unit was reportedly on the verge of being disbanded by the new MoD leadership, which considered the 100th Reconnaissance Brigade's model of operation to be already outdated.⁴³ Exercises conducted between 2009-2012 showed that the brigade was overweight and lacked structural cohesion.⁴⁴

Although the latest information about the unit comes from 2018, the unit is likely still operational. The creation of a dedicated reconnaissance brigade concept was revised and improved, which is confirmed by the establishment of the 96th Reconnaissance Brigade in the Western Military District. That said, the exact composition of the unit remains classified. According to a Russian journalist, Alexei Ramm, the brigade comprises a reconnaissance battalion, which consists of deep reconnaissance and special-purpose companies. The brigade also fields EW and UAV subunits. 45 A 2018 Interfax news item listed five battalions altogether within the brigade—airborne assault, reconnaissance, special purpose, electronic reconnaissance, and unmanned aerial vehicles—as well as a howitzer artillery battalion. 46 But this remains unconfirmed.

The 40th NCB Regiment is stationed in Michurino, whereas the logistics support on an army level is provided by the 78th Logistics Brigade. The latter seems to be divided between two locations. The main elements are in Pokoynoye (possibly co-located with the 205th Motor Rifle Brigade⁴⁷); the bridging and automobile battalions are deployed farther north, in Volgograd.

Lastly, the 58th CAA holds operational control over the 4th Military Base in South Ossetia. The main elements of the base are located in Tskhinvali. Russia has maintained its presence there since 1992, initially as a part of the Joint Peacekeeping Force established in the aftermath of the 1991-92 Georgian-Ossetian conflict. Following the 2008 war with Georgia, Russia

⁴² Mikhail Barbanov, ed. Russia's New Army, Centre for Analysis of Strategies and Technologies, Moscow, 2011, https://www.cast.ru/files/book/NewArmy_sm.pdf, p. 26.

⁴³ Алексей Михайлов, Дмитрий Бальбуров, Шойгу предложили расформировать уникальную воинскую часть, Известия, 19 Dec. 2012, https://iz.ru/news/541771.

⁴⁴ Алексей Рамм, С «Арбалетом» в глубокий рейд, Независимая газета, 11 Mar. 2021, https://nvo.ng.ru/nvo/2021-03-11/1_1132_crossbow.html.

⁴⁵ Алексей Рамм, С «Арбалетом» в глубокий рейд, Независимая газета, 11 Mar. 2021, https://nvo.ng.ru/nvo/2021-03-11/1_1132_crossbow.html.

⁴⁶ Интерфакс АВН, Танковые подразделения армейского корпуса Черноморского флота провели учебные стрельбы на полигоне "Ангарский", Интерфакс ABH, 25 Jan. 2018, https://www.militarvnews.ru/Story.asp?rid=1&nid=472032&lang=RU.

⁴⁷ Georg-eparhia.ru, Войсковой священник принял участие в торжественных построениях военнослужащих, Религиозная организация «Георгиевская Епархия Русской Православной Церкви (Московский Патриархат)», 1 June 2018, http://georg-eparhia.ru/3930-voyskovoy-svyaschennik-prinyal-uchastie-vtorzhestvennyh-postroeniyah-voennosluzhaschih.html.

recognized South Ossetian independence and formally established a military base there in 2009. The main role of the unit is to conduct high-tempo combined-arms operations along the flat terrain towards Gori. If the city is taken, Tbilisi would then be directly threatened.

The 4th Military Base has a brigade-level strength. It has a motor rifle structure that includes one tank and three motor rifle battalions. The base is reinforced with a 9K37 Buk-M1 air defense battalion and an MLRS artillery battalion for short-range counterbattery fire missions. The main role of the 4th and 7th Military Bases is to deter Georgia from any attempts to retake lost provinces.

Units Subordinated to the Southern Military District Command

In addition to the three combined arms armies that can conduct operations independently, the SMD commander can also rely on approximately 17 units that can support maneuver, serve as force multipliers, or provide logistics support. Figure 6 shows the locations of units subordinated to the SMD commander.

100 200 300 **Joint Strategic Command South** Kamyshin 9 Boguchar Serafimovich lzyum Millerovo 439 Slovyansk Volgograd Kramatorsk Luhans'k Kalach-on-Don Znamens Morozovsk Kamensk-Shakhtinsky Donets'k Oktyabrskiy JSC South HQ Marinovka Shakhty Novocherkassk Volgodonsk Rostov-on-Don Stepnoy Mariupol' Zernograd Berdyans'k Salsk SEA Elista OFPrimorsko-Akhtarsk A Z O 39Timashevsk Khomutnikov Korenovsk Izobilny Temryuk Slavyansk-na-Kubani Krymsk Krasnodar Stavropol Budyonnovsk Molkino Novorossiysk Cherkessk **Pyatigorsk** Kislovodsk, Storozhevaya. Prokhladnyy disputed areas Sochi Nalchik* Aksay | 175th Command (C4I) Brigade Gyumri | 102nd Military Base numi Izobilny | 154th Radio Engineering Brigade Kamensk-Shakhtinsky 11th Engineering Brigade Kamyshin | 28th NCB Brigade Korenovsk | 77th Air Defense Brigade Kutaisi Tskhinvali Poti Molkino | 10th Spetsnaz Brigade Prokhladnyy 346th Spetsnaz Brigade Joint Strategic Command South HQ Rostov-on-Don Batumi TBILISI® 176th Communications Brigade Slavyansk-na-Kubani | 10th Maintenance-Evacuation Regiment Sputnik | 74th Spetsnaz Radio-engineering Regiment 22nd Independent Spetsnaz Brigade Stepnoy 19th EW Brigade Gyumri Kars. Timashevsk | 39th Railway Troops Brigade Volgograd | 37th Railway Troops Brigade YEREVAN _© Erebuni Znamensk | 439th Reactive Artillery Brigade Source: Author's findings.

Figure 6. Units under the command of the SMD commander

At the top of this chain of units is the Aksay-based 175th Command (C4I) Brigade, through which the command of the SMD forces is exercised. It allows for the undisrupted C2 of all motor rifle, tank, artillery, and missile formations within the SMD. This is provided through all available communications channels, including radio relay, satellite, or tropospheric communication. The brigade also provides secure video conferencing and IP telephony. Each year the brigade conducts a long-range radio relay exercise that seeks to manage theater-wide operations.

Some Russian sources also state that an additional unit located in the SMD is tasked with providing communications for district forces. This is the 176th Communications Brigade (Territorial), which is located in Stepnoy.⁴⁸

At the same time, district-level electronic warfare capability is provided by the 19th EW Brigade, which is located in Kovalevka, close to the 22nd Spetsnaz Brigade's base.⁴⁹ The brigade was stood up in 2015 in an attempt to gather all EW units under one command and to provide operational-strategic EW capability. The facts that the unit was established in 2015 and that it is close to Ukraine indicate that its primary objective is also Ukraine.

Each military district also fields an air defense brigade, which has the role of providing theaterlevel air defense coverage for land forces. These brigades hinder the movement of opposing forces' aircraft at medium distances, but they also, similar to the VKS, have standoff, long-range capability. In the SMD's case, in 2014 the 77th Air Defense Brigade was stood up in Korenovsk, which was the first unit in the Russian ground forces that received the S-300V4 SAM system.⁵⁰

This is the latest variant of the venerable S-300 family of air defense systems. It is equipped with a new hit-to-kill missile, which makes it optimal to engage cruise and ballistic missiles. The S-300V4 can engage targets at ranges of up to 400 km (248 miles) and altitudes of 40 km (24 miles), which also makes it optimal to attack high-value aerial assets such as AWACS, or jammer aircraft. The system's engagement umbrella was increased twofold compared to its

⁴⁸ Православные новости, Военнослужащие из окормляемой части №71609 посетили в праздник Пасхи Кирилло-Мефодиевский храм в поселке Рассвет, Православные новости, 9 Арг. 2018, http://blagnews.ru/news/i45638-voennoslujashchie-iz-okormlyaemoj-chasti-71609-posetili.html.

⁴⁹ Администрация Аксайского района, Рассветовское сельское поселение, https://aksayland.ru/about/settlement/rassvetovskoe-settlement.

⁵⁰ Сергей Голобородько, Кореновск. Учения в 77-й зенитно-ракетной бригаде, 3 Feb. 2020, https://www.youtube.com/watch?v=p3|jLBbYLas&ab_channel=%D0%A1%D0%B5%D1%80%D0%B3%D0%B5 %D0%B9%D0%93%D0%BE%D0%BB%D0%BE%D0%B1%D0%BE%D1%80%D0%BE%D0%B4%D1%8C%D0% ВА%D0%BE. Also, Алексей Рамм, Зенитно-ракетные комплексы получат эффективную защиту, Независимая газета, 17 Sept. 2020, https://nvo.ng.ru/nvo/2020-09-17/4_1109_protection.html.

predecessor, through the introduction of "new technologies and hardware" and the implementation of an automated battle management system.⁵¹

Also at the disposal of the military district commander is the 439th Reactive Artillery Brigade from Znamensk. The unit fields the BM-30 Smerch and 9A52-4 Tornado MLRS.⁵² The brigade's role is to provide counter-battery fire against opposing forces' artillery means. Concurrently, the system is designed to attack missile, artillery, and mortar batteries; destroy strongpoints; and eliminate enemy nodes of resistance. With its missiles, the Smerch can engage targets up to 90 km (55 miles) away, which cannot be matched by any artillery units near Russia's southern borders. One Smerch launcher can cover the area of 67,2 hectares (ha) (0,25 square miles), compared to 4 ha for the BM-21 and 29 ha for the BM-27. One battery of eight launchers can disorganize opposing forces' division-level operations. Three launchers can provide a comparable level of destruction to two Tochka-U-equipped brigades.

The 28th NCB Brigade based in Kamyshin provides CBRN protection at the district level. At the same time, NCB units disrupt opposing forces target detection and precision-guided munitions strikes by deploying smoke and aerosol screens to conceal friendly forces.⁵³ An NCB Brigade, similar to an NCB regiment, also possesses a combat element, which comes in the form of a TOS-1/TOS-1A heavy flamethrower battalion. An NCB Brigade differs from an NCB Regiment in that the former is also tasked with the provision of CBRN capability for the Russian Ministry of Emergencies, which among others was practiced during the 2020 iteration of the "Kavkaz" exercise.⁵⁴ Still, it should be stressed that if the situation demands, elements detached from an army-level NCB regiment could be involved in disaster mitigation efforts.

In Kamensk-Shakhtinsky, the 11th Engineering Brigade is tasked with setting up fortifications, building command posts, setting up minefields, and demining. The unit can be also engaged in camouflaging troop deployment areas.

⁵¹ Сергей Линник, Зенитная ракетная система С-300В: против самолётов, крылатых и баллистических ракет, topwar.ru, 15 Mar. 2020, https://topwar.ru/168997-zenitnaja-raketnaja-sistema-s-300v-protivsamoletov-krylatyh-i-ballisticheskih-raket.html and Александр Храмчихин, На страже сердца России, Независимая газета, 11 Jan. 2019, http://nvo.ng.ru/concepts/2019-01-11/7_1029_army.html.

⁵² Антон Лавров, Алексей Рамм, «Торнадный» залп: Западный военный округ получит новое оружие, Известия, 26 Mar. 2021, https://iz.ru/1142375/anton-lavrov-aleksei-ramm/tornadnyi-zalp-zapadnyi-voennyiokrug-poluchit-novoe-oruzhie.

⁵³ Mil.ru, Министерство обороны Российской Федерации, https://structure.mil.ru/mission/fight_against_terrorism/news/more.htm?id=12302553@egNews&_print=true.

⁵⁴ Юрий Бородин, Задача условная, готовность – реальная и полная, Красная Звезда, 14 Aug. 2020, http://redstar.ru/zadacha-uslovnaya-gotovnost-realnaya-i-polnaya/.

In 2016 the 10th Maintenance-Evacuation Regiment was established in Slavyansk-na-Kubani. The regiment is composed of two battalions, one tasked with evacuation and one with equipment repair and restoration. Plans reportedly call for a reconnaissance company to be established within such regiments. The creation of regiments dedicated to restoration and maintenance has freed up resources of front-line units, which had been previously tasked with the evacuation of damaged equipment from the battlefield. At the same time, resources available to regiment-size formations are greater than those provided to front-line subunits, which has resulted in an increased pace of evacuating damaged equipment from the battlefield and faster times of returning it to service.⁵⁵

Railway transport, which is key for long-distance troop mobility on a district level, is provided by the 37th and 39th Independent Railway Troops Brigades, based in Volgograd and Timashevsk, respectively.

Finally, the SMD commander has operational control of the 102nd Military Base in Armenia. The unit has two main bases. One is located in the city of Gyumri, where the main elements of the Russian presence in Armenia are located. Additional subunits, mostly aviation, are located in Yerevan.

In Gyumri, Russia seems to deploy a combined-arms brigade. The main combat elements include one T-72B and three BMP-2 battalions. Artillery assets within the artillery battalion comprise the 2S1 Gvozdika SPH and BM-21 Grad MLRS.⁵⁶ The commander of the 102nd Military Base also commands all Russian aviation assets in Armenia (3624th Aviation Base). Apart from a squadron of Mi-24s and Mi-8s, the aviation component also includes a squadron (18 airframes) of MiG-29s, both of which station in Erebuni Airport.⁵⁷ These fixed-wing assets are to be replaced by Su-30SMs, which was to occur in the 2020-21 timeframe, but yet failed to materialize.58

⁵⁵ Дмитрий Витальевич Булгаков, Современное состояние и перспективы развития системы материально-технического обеспечения Вооруженных Сил Российской Федерации, Материальнотехническое обеспечение Вооруженных Сил Российской Федерации, 1/2020, р. 7.

⁵⁶ Т24, Военная база в Армении. База 102. Часть 1 | Полигон | Т24, 27 Jan. 2020, https://www.youtube.com/watch?v=Mn6PvvpjbYE.

⁵⁷ Военная база в Армении. База 102. Часть 2 | Полигон | T24, 29 Jan. 2020 https://www.youtube.com/watch?v=3pSAI-j141U.

⁵⁸ Леонид Нерсисян, Новое сдерживание: Россия развернёт в Армении истребители Су-30СМ, Regnum, 23 Apr. 2019, https://regnum.ru/news/polit/2617979.html.

The main training range for units located in Gyumri is at the Bagramyan Military Training Area, some 100 km south of the city. Consequently, any military exercises need to include a mobility drill as well. Although some troops can be airlifted, hardware is moved by rail.

Some sources state that the air defense of the Russian units in Armenia is provided by the 988th Air Defense Regiment.⁵⁹ This includes one battery each of S-300V3 and Buk-M1 and M2.⁶⁰

⁵⁹ Александр Храмчихин, Кому нужнее российская военная база в Гюмри, Независимая газета, 27 Aug. 2018, https://www.ng.ru/armies/2018-08-27/7_7297_armenia.html.

⁶⁰ MrBurjuin, ПВО 102-ой российской военной базы в Армении/102nd Russian military base In Armenia. Air Defense, MrBurjuin, 26 May 2019, https://www.youtube.com/watch?v=K-eWohWGmFI.

Airborne Forces and Special Forces

Three Spetsnaz brigades and one air assault division are deployed in the SMD. Figure 7 shows the locations of the airborne and special forces units. These include the 22nd Spetsnaz Brigade in Stepnoy,61 the 10th Spetsnaz Brigade from Molkino, and the 346th Spetsnaz Brigade from Prokhladny. These brigades are tasked with conducting deep reconnaissance behind the enemy's lines against strategic-value targets. The latter two units' AOR seems to be the Caucasus and support of military operations in this theater. Although the 22nd Spetsnaz Brigade was previously engaged in operations in Dagestan and in Georgia, its focus seems to have shifted towards Ukraine because of its proximity to it. That said, all these units could likely be deployed anywhere within the SMD, or within Russia and abroad for that matter, where the situation demands special force presence or long-range reconnaissance activity.

⁶¹ Co-located with the 176th Communications Brigade.

Airborne Forces Bogucha 1141st Artillery Regiment **1681st Logistics Battal** Feodosia | 171st Airborne Battalion Serafimovich 56th Air Assault Brigade 7th Air Assault (Mountain) Division HQ 108th Airborne Regiment 3rd Air Defense Regiment Unidentified Tank Battalion 743rd Communications Battalion Millerovo 162nd Reconnaissance Company 629th Engineer-Sapper Battalion Volg Stavropol | 247th Airborne Regiment Luhans'k disputed areas Morozovsk Kamensk-Shakhtinsky Donets'k Oktyabrskiy Zaporizhya Shakhty Volgodonsk Novocherkassk Rostov-on-Don Taganrog Mariupol' Zernograd Berdyans'k Salsk Elista Tikhoretsk Korenovsk 162 Izobilny Armavir Budyonno Maykop E A Gelendzhik

Locations of airborne and special forces units in the SMD

Source: Author's findings.

The 74th Spetsnaz Radio-Engineering Regiment, which is located in Izobilny, also supports these special forces missions.

The 7th Air-Assault Division is in Novorossiysk, although operationally it is controlled by the Airborne Forces HQ. The division is earmarked for operation in the mountainous environment of the Caucasus. The addition of a new airborne regiment in Crimea⁶² has expanded divisional

⁶² Тасс, Шойгу заявил, что третий десантно-штурмовой полк развернут в Пскове, Тасс, 25 Mar. 2021, https://tass.ru/armiya-i-opk/10992351 and Виктор Сокирко, Учебная война за Крым: Манёвры ВДВ позвали Киев в окопы Херсона, Свободная Пресса, 18 Mar. 2021, https://svpressa.ru/war21/article/292834/.

AOR, which now also includes the defense of the peninsula. That said, given the training the personnel undergo, divisional subunits can be also deployed to the Middle East or Central Asia.

The division fields the 108th and 247th Air Assault Regiments, which are located in Novorossiysk and Stavropol, respectively. In 2017 the 171st Air Assault Battalion was set up in Feodosia, Crimea. It was to be upgraded into a regiment in 2021; however, in April 2021 Sergei Shoigu announced that the 56th Air Assault Brigade would be deployed from Kamyshin into Feodosia and would be downgraded to a regiment, presumably under the command of the 7th Air Assault Division.

Out of these three regiments, only one battalion from the 108th Regiment is understood to field the newest BMD-4 and BTR-MDM air-droppable combat vehicles. Consequently, the division is still predominantly equipped with BMD-2s and BTR-Ds.

Each air assault regiment fields one airborne battalion, which is tasked with conducting airborne (parachute) operations to capture air bases and/or landing zones. The follow-on forces would then be deployed via rotary- or fixed-wing assets.

It is also understood that a tank battalion has been set up within the division's order of battle. 63 Each Russian airborne division has been up-armored with tank battalions, which indicates a shift as to how airborne and air assault divisions are to be utilized on the battlefield. Indeed, the inclusion of organic air defense regiments (ADRs) and now tank battalions indicate that the Airborne Troops (Vozdushno-Desantnye Voyska: VDV) divisions need to maintain readiness to operate independently or within a larger grouping of forces in any strategic direction in conventional, high-tempo operations.

To support maneuvers are the 1141st Artillery Regiment from Anapa and the 3rd Air Defense Regiment from Novorossiysk.

The division also has the 629th Engineer-Sapper Battalion and the 1681st Logistics Battalion; the command is exercised through the 743rd Communications Battalion.

In 2017 the 150th Separate Repair and Restoration Battalion of the Airborne Forces was established in Orekhovo-Zuevo to provide these capabilities to airborne units near the

⁶³ Kubnews.ru, Дивизию ВДВ в Новороссийске усилили танковым батальоном, Кубанские Новости, 11 Mar. 2019, https://kubnews.ru/obshchestvo/2019/03/11/diviziyu-vdv-v-novorossiyske-usilili-tankovymbatalonom/.

battlefield areas.⁶⁴ The unit is characterized by high mobility. Its personnel can relocate to support exercises and military operations where VDV forces are engaged. 65

Two, seemingly different but concurrent, reforms are being implemented in the VDV units. On the one hand, as already stated, airborne and air assault divisions have had their firepower and mission envelope increased. But at the same time, VDV's air assault brigades are being provided with the organic rotary-wing capability to increase flexibility and readiness. During the Kavkaz-2020 strategic-operational exercise, a BMD-4M-equipped battalion was airdropped, along with an airmobile medical detachment, which was a novelty. From an operational point of view, airborne forces were used as a mobile reserve with various VDV formations operating in various depths of enemy defenses and on the flanks to achieve operational-tactical and tactical results. Airborne battalions from air assault brigades operated and commanded an army aviation unit and deployed to areas that were threatened by the enemy's operations.66

The 31st Air Assault Brigade (Central Military District) is the experimental unit. It operates an organic air unit to test this concept, which was originally employed during the Centre-2018 exercise. According to Izvestia, because these tests proved to be positive, each air assault brigade will now be equipped with a new battalion for the conduct of such missions, and each airborne and air assault division will field two new battalions.⁶⁷ It is not clear whether new battalions will be established or existing subunits will be converted to undertake new missions.

⁶⁴ Mil.ru, Министерство обороны Российской Федерации,

https://structure.mil.ru/structure/forces/airborne/structure/details.htm?id=12387@egOrganization and Олег Грозный, О тех, кто умеет всё, Красная Звезда, 21 Feb. 2020, http://redstar.ru/o-teh-kto-umeet-vsyo.

⁶⁵ Олег Грозный, О тех, кто умеет всё, Красная Звезда, 21 Feb. 2020, http://redstar.ru/o-teh-kto-umeet-vsyo.

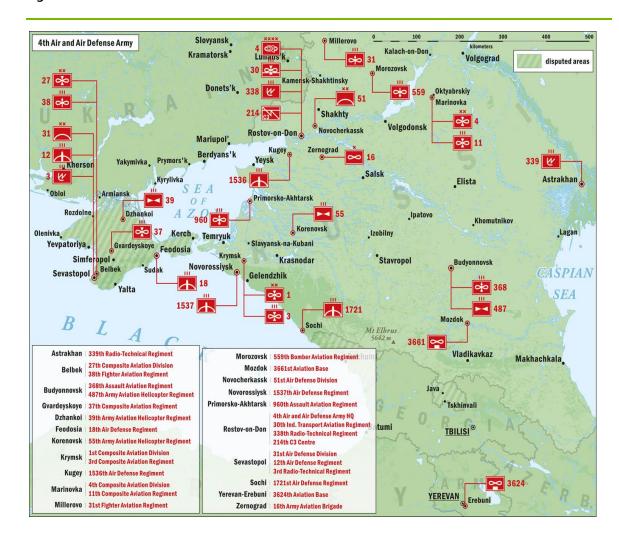
⁶⁶ Юрий Бородин, Крылатая гвардия выходит на новые рубежи, Красная Звезда, 19 Feb. 2021, http://redstar.ru/krylataya-gvardiya-vyhodit-na-novye-rubezhi/.

⁶⁷ Роман Крецул, Алексей Рамм, Винтокрылая пехота: в ВДВ приступили к созданию батальонов нового типа, Известия, 24 Feb. 2021, https://iz.ru/1128589/roman-kretcul-aleksei-ramm/vintokrylaia-pekhota-v-vdvpristupili-k-sozdaniiu-batalonov-novogo-tipa.

The 4th Air and Air Defense Army

Combat aviation

The Aerospace Forces (Vozdushno-Kosmicheskiye Sily: VKS) control the 4th Air and Air Defense Army (AADA), which is responsible for the air defense of southern Russia. Specifically, the army fulfils several roles. Firstly, through SAM regiments, it provides defense capability over strategically important sites and areas. Secondly, aviation assets under its command can conduct combat air operations against all threats, from combating terrorists in mountainous regions of the Northern Caucasus to undertaking missions against a conventional opponent, such as Georgia or Ukraine. The AADA also manages many independent early-warning sites within the SMD, which feed information to regional air defense centers and then to the VKS command. This allows Russia to increase the size of its early-warning scanning efforts and networks and thus increase the readiness of the force to respond to various air threats. Figure 8 shows air and air defense units under the command of the 4th AADA.



Locations of air and air defense units under the command of the 4th AADA

Source: Author's findings.

The 4th AADA fields three aviation divisions (nine aviation regiments altogether), one independent (transport) regiment, two air bases, one army aviation brigade, and three army aviation regiments.

Concurrently, the army also controls two air defense divisions, which are composed of five SAM regiments and three radio-technical (radar) regiments.

In Krymsk is stationed the 1st Composite Aviation Division (Smeshnnaya Aviatsionnaya Diviziya: SAD), which is the largest aviation formation under the command of the 4th AADA. It is responsible for combating all threats within the Army's AOR. Because of the division's

proximity to Ukraine, the unit is also likely to be at a higher level of readiness than other units, and, should hostilities break out, the 1st SAD will also be tasked with conducting initial combat operations.

The division operates three combat aviation regiments. The 3rd Composite Aviation Regiment (Smeshnnyi Aviatsionnyi Polk: SAP) stations in Krymsk. The unit is composed of three Su-27 squadrons (two Su-27SM(3) and one Su-27P).68 Several Su-30M2 trainer aircraft are also deployed at the base. *Izvestia* reported in 2019 that the 3rd SAP could be the first front-line unit to receive the Su-57 fifth-generation multifunctional fighter aircraft (the other alternative is the 38th Fighter Aviation Regiment at Belbek). 69

The 31st Fighter Aviation Regiment (Istrebitelnyi Aviatsionnyi Polk: IAP) is located in Millerovo. The unit has two fully equipped Su-30SM squadrons. There are also more than 20 MiG-29s at the base, but they do not seem to have moved for the past few years. It is thus possible that they are not operational.

The air base in Morozovsk hosts the 559th Bomber Aviation Regiment (Bombardirovochni Aviatsionnyi Polk: BAP). The unit is equipped with three squadrons of Su-34 fighter-bomber aircraft (36 aircraft).

In 2016 the 4th SAD was established, with the HQ at the Marinovka Air Base, to provide an additional C2 body to manage the growing number of aviation assets under the command of the 4th AADA.

At Marinovka is the 11th SAP, which provides reconnaissance capability to the division and then to the higher echelon. Around 2014-15, the unit received Su-24Ms that were diverted from Morozovsk as Su-34 deliveries commenced. Altogether, 36 airframes are deployed at the base, although it is not clear how many are in active service.

The 368th Assault Aviation Regiment (Shturmovoy Aviatsionnyi Polk: ShAP) is deployed at the Budyonnovsk Air Base. The unit is equipped with two squadrons of Su-25SM/SM3 and is thus tasked with providing close-air support for ground units. The base also hosts the 487th Independent Helicopter Regiment (see below).

Lastly, the 4th SAD commands the 960th ShAP at the Primorsko-Akhtarsk. The unit is equipped with three squadrons of the Su-25SM/SM3.

⁶⁸ Центр АСТ, Еще три модернизированных истребителя Су-27СМ(3), 27 Dec. 2018, https://bmpd.livejournal.com/3473756.html.

⁶⁹ Алексей Рамм, Алексей Козаченко, Богдан Степовой, Поколение Крыма: новейшие истребители Су-57 отправят на южные рубежи, Известия, 8 Apr. 2018, https://iz.ru/861344/aleksei-ramm-aleksei-kozachenkobogdan-stepovoi/pokolenie-kryma-noveishie-istrebiteli-su-57-otpraviat-na-iuzhnye-rubezhi.

In November 2014, a few months after Crimea was incorporated into the Russian Federation, the VKS established the 27th SAD at the Belbek Air Base to manage air assets under its command that were deployed to the peninsula. 70 The division was quickly reinforced to ensure that Russian air capability was viable and able to operate against a range of conventional threats.

The division is composed of three regiments:

- The 37th SAP is deployed at Gvardeyskoye. It has one squadron each of Su-24Ms and Su-25SMs.⁷¹ These were redeployed from the 559th BAP and 960 ShAP, respectively, in 2014-15.72
- The 38th IAP is at Belbek and fields two squadrons of Su-27s and Su-27UBs that were diverted from the 3rd SAP in 2014.
- The 39th Helicopter Regiment (Vertoliotnyi Polk: VP) is deployed at the Dzhankoi Air Base. It too was already formed in 2014. The regiment fields Ka-52s, Mi-28N/Mi-35Ms, and Mi-8AMTSh helicopters, although it is unclear how many of those are deployed at the base.⁷³ The Mi-8 squadron is likely at full strength; so is the Mi-28N/Mi-25M mix. From eight to 10 Ka-52s are at the base. Figure 9 shows a satellite image of the Dzhankoi Air Base.

⁷⁰ Interfax, В Крыму появится авиадивизия российских ВВС, Interfax, 13 Nov. 2014, https://www.interfax.ru/russia/406947.

 $^{^{71}}$ It is possible that fewer than 12 Su-25SMs are deployed at the base. Satellite imagery shows around 8-10 aircraft at Gvardeyskoye.

⁷² Piotr Butowski, Flashpoint Russia: Russia's Air Power: Capabilities and Structure (Vienna: Harpia Publishing, 2019), pp. 58-59.

⁷³ Millet Channel, 5 –летие вертолётного полка, Millet Channel, 9 July 2019, https://www.youtube.com/watch?v=MsoCb06uIC0.

Dzhankoy Air Base, Crimea

Figure 9. Satellite image of the Dzhankoi Air Base

Source: Includes material © CNES 2021, Distribution Airbus DS, all rights reserved / PLEIADES satellite imagery. Acquired through ShadowBreak Intl; Image date: 6 Apr. 2021.

The 4th AADA also directly manages some aviation bases and independent regiments.

At the Erebuni Air Base, the Russian air assets are centered around the 3624th Aviation Base (described above).

The 3661st Aviation Base at Mozdok seems to serve as the main logistical hub for assets that seek to control the airspace around the North Caucasus. At the same time, assets operating from Mozdok can project power beyond Russia's mainland. The base was the main Russian aviation hub during the 2008 war with Georgia. It serves as a refueling station for aircraft headed for Syria, including tactical and strategic aviation.

The 30th Independent Transport Composite Aviation Regiment (Otdelnyi Transportnyi Smeshnnyi Aviatsionnyi Polk: OTSAP) is based at the Rostov-on-Don Tsentralny Air Base. The unit provides airlift capability to the 4th AADA HQ. It fields a mix of An-12, An-26, An-148, Il-22, L-310, and Tu-134s airlifters. There is also a helicopter squadron attached to the unit, equipped with Mi-8s and Mi-26s for tactical troop airlift. 74

All army aviation units were subordinated to the Air Force Command between 2003 and 2015; since 2015 they have organizationally reported to the VKS Command. The VKS is responsible for training, manning, and provision of equipment for army aviation brigades and regiments although, from the operational point of view, army aviation conducts missions tasked by the **ISC** Command.

Consequently, the ground forces HQ, as such, does not field any organic rotary-wing capability. The issue of whether this should be changed has been ongoing in Russia for many years but has so far yielded no results. 75 Although VDV units are attached with helicopter squadrons to increase the readiness and flexibility of airmobile subunits, it seems that the VKS will continue to manage the rotary-wing fleet in support of ground operations in the medium term.

In 2015, under the command of the 4th AADA the new 16th Army Aviation Brigade was formed at Zernograd Air Base. The unit is equipped with two each Mi-8 and Mi-28N/Mi-35M squadrons. Satellite imagery of the base also shows around 10 Mi-26 helicopters station at the base. Some are left without rotor blades; however, some do appear to move, which confirms that at least several airframes are operational.

At the Korenovsk Air Base, the VKS deploys the 55th Independent Helicopter Regiment. The unit fields Mi-24 and Mi-28N squadrons, supported by another one equipped with Mi-8AMTsh helicopters. According to a Russian MoD press release, the unit also fields Ka-52s, which increases the number of helicopter regiments at the base to five. 76 Satellite imagery of the base also reveals that major infrastructure work was done between 2014 and 2016. This work included building sheltered parking areas, which is uncommon. Typically, all Russian air assets are parked on aprons, unprotected from weather conditions or adversarial missile strikes.

Lastly, as already mentioned, at the Budennovsk Air Base the 487th Independent Helicopter Regiment (Otdelnyi Vertoliotnyi Polk: OVP) is co-located with the 368th ShAP. The unit also commands a Forpost UAV squadron stationed at Mozdok and a duty post at Khankala (Grozny)

⁷⁴ Piotr Butowski, Flashpoint Russia: Russia's Air Power: Capabilities and Structure (Vienna: Harpia Publishing, 2019), p. 60.

⁷⁵ Александр Храмчихин, Лучше разнотипность, чем дефицит, Независимая газета, 12 Mar. 2020, https://nvo.ng.ru/forces/2020-03-12/3_1085_aviation.html.

⁷⁶ Mil.ru, Министерство обороны Российской Федерации, https://ens.mil.ru/education/more.htm?id=12149925@egNews.

Air Base.⁷⁷ Consequently, the unit fields a larger number of airframes than other helicopter regiments or brigades. It has two Mi-8 (AMTsh and MTV-5 variants) squadrons, totaling around 40 helicopters; one Mi-28N squadron; and one Mi-24/Mi-35M squadron. This gives a total of around 75 helicopters.

The VKS already deploys a powerful strike group within the SMD that can conduct a wide range of operations both independently and in support of ground forces' missions. In total, approximately 230 combat fixed-wing air assets are located within the SMD's AOR.78 Given the number of contingencies the 4th AADA needs to be prepared to address, it is likely that these combat aircraft are at higher readiness levels, which includes good access to spares. That said, it is highly unlikely that all airframes would be available at once and for an extended period.

If needed, additional combat and support aircraft can be redirected from other military districts—in particular, the Central and Western MDs.

Air defense

The 4th AADA provides strategic-level early-warning and air defense coverage for units and areas stationed in the SMD. To fulfil this mission, it fields two air defense divisions, described in Table 1. Altogether, there are approximately seven S-400, two S-300PS, and two S-300PM SAM battalions, fielded into five SAM regiments, deployed in the SMD and under the command of the 4th AADA.

Composition of air defense units within the 4th AADA Table 1.

Unit	Equipment (Number of Battalions)
31st Air Defense Division (Sevastopol)	
12th ADR (Sevastopol)	3 x S-400
13h ADR (Feodosia)	2 x S-400
51st Air Defense Division (Novocherkassk) [1]	
1536th ADR (Kugey)	2 x S-300 PM(?)
1537th ADR (Novorossiysk)	2 x S-400, 2 x S-300PS
1721st ADR (Sochi)	Pantsir-S1, Buk-M2

Source: Author's findings.

Note: [1] The division probably fields the S-350 Vityaz air defense system.

⁷⁷ Piotr Butowski, Flashpoint Russia: Russia's Air Power: Capabilities and Structure (Vienna: Harpia Publishing, 2019), p. 63.

⁷⁸ Author's estimate. The number includes assets deployed in Crimea, but excludes naval aviation, and is divided as follows: 60 Su-27s, 24 Su-30SMs, 36 Su-34s, 36 Su-24Ms, 12 Su-24MRs, and 60 Su-25Sm/SM3s.

The 31st Air Defense Division is responsible for the protection of Crimea against air and surface-to-surface missile strikes from the Black Sea and Ukraine. The 51st Air Defense Division's AOR is more dispersed. Its assets are deployed near Ukraine's eastern borders, near Donetsk and Luhansk Oblasts, but also along the Southern Black Sea Coast. There are no VKS air defense regiments located inland in Stavropol Krai, closer to Georgia, or on the Caspian Sea coast.79

The 51st AD has three regiments. The main role of the 1536th ADR is to provide air and missile defense of Rostov-on-Don. The regiment has two S-300PM battalions deployed to the west and southwest of the city. Altogether they provide a defensive umbrella against airborne threats from the Sea of Azov and southeastern parts of Ukraine.

The primary objective of the 1537th ADR is the protection of southern parts of the Black Sea Coast. There are two S-400 battalions dedicated to the air defense of Novorossiysk, Krymsk, and Anapa. Two additional S-300PS battalions are deployed in coastal areas of Abkhazia to protect Russian assets there.

Lastly, in the run-up to the 2014 Winter Olympic Games in Sochi, the VKS established the 1721st ADR. The unit was tasked with protecting the event from low-flying air threats, such as UAVs and hijacked helicopters or aircraft. The structure of the regiment, which is unique compared to other AD regiments, includes only the Pantsir-S1 self-propelled, medium-range surface-toair missile and antiaircraft artillery system and the Buk-M2 SAM system. Another novelty of this regiment was how it was organized to conduct air defense missions: Various games that fell within the event were protected not by batteries but by individual vehicles, which was facilitated by the high mobility of the Pantsir-S1 system. In this configuration, the Buk-M2 provided an outer defense ring and the Pantsir focused on threats that could appear near Sochi.80

Experience using the 1721st ADR proved to be positive. Consequently, each AADA will now field mobile reserve air defense units, which will be implemented in air defense tasks of existing S-300/S-400 batteries and battalions. The new regiments will operate from ambushes, and will

⁷⁹ An S-300 SAM garrison is located 230 km (140 miles) east of Astrakhan, but this is understood to be a training unit.

⁸⁰ Иванов Павел, «Панцирь» на всякий случай, Военно-промышленный курьер, 25 July 2019, https://vpknews.ru/articles/51042.

be deployed to areas most threatened by opposing forces' aviation.81 At least one of such units has already been stood up and is based near Moscow.82

It should also be noted that according to the district's commander, Colonel-General Alexander Dvornikov, the new S-350 Vityaz air defense system is now deployed within the SMD.83 According to the press report, the S-350 had been handed over to one of the air defense regiments in the Krasnodar Krai. This, in turn, suggests that the 51st Air Defense Division's 1537th or 1721st regiments may have received the system. The medium-range S-350 is expected to replace the S-300s and Buks still deployed across numerous air defense sites in Russia, and to complement long-range S-400s.

The 51st Air Defense Division is supported by two radio-technical (radar) regiments. The 338th Radio-technical Regiment is deployed in Rostov-on-Don, and the 339th is stationed in Astrakhan.

Russian strategic, long-range air defense capability in Crimea now fully rests on S-400s. The 12th ADR protects the western and northern approaches to the peninsula (Ukraine and the Black Sea), whereas the 18th ADR focuses on threats from the east, including the Sea of Azov and the southeastern Black Sea.

The 12th ADR battalions are deployed south of Sevastopol, east of Yevpatoriya, and at the Dzhankoy Air Base.

The first two units have a standard S-400 battalion configuration, which includes 92N6 Grave Stone battle management radar, 96L6 early-warning radar, and eight 5P85SM transportererector-launchers. However, the site at Dzhankoy fields nine TELs, which could indicate that the ninth one is the 51P6 TEL. This is designed to carry the 40N6, reportedly a 400-km (248mile) long-range SAM.

The 18th ADR operates two sites. One battalion is located south of Feodosia, and it also has the nine TEL configuration, possibly indicating a 40N6 capability. The second subunit is deployed west of the city of Kerch.

⁸¹ Алексей Рамм, Богдан Степовой, Андрей Федоров Известия, В засадном положении: Минобороны создает мобильные резервные части ПВО, Известия, 2 July 2019, https://iz.ru/892760/aleksei-ramm-bogdan $stepovoi/v\hbox{-}zasadnom\hbox{-}polozhenii\hbox{-}minoborony\hbox{-}sozdaet\hbox{-}mobilnye\hbox{-}rezervnye\hbox{-}chasti\hbox{-}pvo.$

⁸² Антон Лавров, Роман Крецул, Прикроются «Панцирем»: в армии формируют мобильные полки ПВО Известия, Известия, 10 July 2020, https://iz.ru/1033585/anton-lavrov-roman-kretcul/prikroiutsia-pantciremv-armii-formiruiut-mobilnye-polki-pvo.

⁸³ Интерфакс АВН, Военные на юге России получили новую систему ПВО С-350, Интерфакс АВН, 12 Мау 2021, https://www.militarynews.ru/story.asp?rid=1&nid=549916&lang=RU.

Divisional radar capability is provided by the 3rd Radio-Technical Regiment, headquartered west of the Belbek Air Base.

Russian air defense posture, however, is not only based on regiments that can conduct their missions independently. The VKS has also established a wide and multi-layered network. The forceful takeover of Crimea by Russian forces in early 2014 significantly changed the regional security environment and military balance in the Black Sea Basin. On the one hand, the peninsula had to be quickly reinforced to deter any Ukrainian attempts to retake it. On the other, it forces Kyiv to contend with a possible three-front war: the 20^{th} CAA engages from the north, the 8^{th} CAA from the east, and the reinforced 22^{nd} Army Corps from the south.

Russian expeditionary operations in Syria have transformed the Black Sea Fleet into the main logistical hub for support of this mission. Although vessels from different fleets are deployed into the Mediterranean to protect Russian interests there, it is the BSF's command that exercises operational control over this task force. If needed, the BSF assets can rapidly augment the standing force in the Mediterranean during crises.

It is therefore not surprising that the development of capabilities in Crimea is a long-standing priority for the political-military leadership in Moscow. The peninsula is seen as a vital power-projection tool from which Russia can exert pressure, not only into its immediate neighborhood but also beyond it. In this context, Ukraine is the most immediate target and will remain so in the long term. NATO forces operating in the Black Sea will also continue to be harassed and intimidated by Russian forces.⁸⁴

In 1997 Ukraine and Russia signed a number of agreements, which governed the status of the Russian Black Sea Fleet. According to these documents, Moscow could maintain a 25,000-personnel-strong military presence in Crimea, supported by 132 armored combat vehicles, 24 pieces of artillery, and 22 combat aircraft.⁸⁵ The agreement was signed for 20 years, and in 2010 was extended until 2042. During the 2000s the issue of Russian basing in Crimea was a subject of domestic disputes in Ukraine. At some point, Kyiv announced that the 1997 lease would not be extended beyond 2017, after which all Russian units would need to withdraw. Preparing for this contingency, the Russian Navy began construction of a new naval base in Novorossiysk. The takeover of Crimea and the incorporation of the peninsula into Russia effectively removed all barriers to its militarization. This facilitated a significant increase in manpower, hardware, and military infrastructure to support this presence.

⁸⁴ Josh Vandiver, "Russian jet flies low past USS Donald Cook in Black Sea," *Stars and Stripes*, 1 Feb. 2021, https://www.stripes.com/news/europe/russian-jet-flies-low-past-uss-donald-cook-in-black-sea-1.660554.

⁸⁵ Электронный фонд правовых и нормативно- технических документов, Соглашение между Российской Федерацией и Украиной о параметрах раздела Черноморского флота, 3 July 1999, https://docs.cntd.ru/document/1902222.

The BSF thus uses two main ports in the Black Sea: one in Sevastopol and one in Novorossiysk. Figure 10 shows Russian units under the command of the BSF.

Nova Kakhovka Black Sea Fleet Bakhchysarai | 133rd Logistics Brigade Yevpatoriva | 68th Engineering Regiment Ahaimany Kherson 126th Coastal Defense Brigade Black Sea Fleet Headquarter 15th Coastal Missile Brigade 810th Naval Infantry Brigade th Artillery Regiment Kacha | 318th Composite Aviation 127th Reconnaissance Brigad 2nd Naval Aviation Division 475th EW Centre 1096th Air Defense Regiment Novotroits'ke 43rd Naval Attack Aviation Regiment 22nd Army Corps Headquarters 4th Independent NCB Regimer Obloi 224th Independent C2 Battalion 529th Communication Centre Armiansk Temryuk | 382nd Naval Infantry Battalion Zaliznyi Por Utash | 11th Coastal Missile Brigade Primorsko-Akhtarsk Krasnoperekopsk Voinka' Rozdolne Dzhankoi 0 Krasnogvardeyskoye Nizhnegorskiy Shcholkine! Olenivka_{• 529} Temrvuk Feodosia Utash Simferopol Anapa Sudak Kacha Bakhchysarai Novvi Svit C Belbek. Sevastopol Gelendzhik 133 E Divnomorskove disputed areas

Figure 10. Locations of units under the command of the Black Sea Fleet

Source: Author's findings.

Ground components

In December 2016 the 22nd Army Corps was set up in Crimea.86 Most of its structures were established based on previously existing Ukrainian units stationed in Crimea pre-2014.

The Corps serves as an additional C2 structure between some ground elements (brigades/regiments) and the BSF HQ, and is expected to conduct independent operations. Its force structure suggests a focus on coastal defensive missions, rather than offensive operations. It is akin to the 11th Army Corps, deployed in the Kaliningrad Oblast. There, however, Russia has developed the 18th MRD, composed of two motor rifle battalions and one tank battalion. This indicates the need to have an operational unit capable of front-wide

⁸⁶ Mil.ru, Министерство обороны Российской Федерации, https://structure.mil.ru/structure/okruga/details.htm?id=12378@egOrganization.

operations, while delivering both maneuverability and immediate preponderance of power. There is no indication that such a division-level formation is being stood up in Crimea. There are more differences between the two outposts. The Kaliningrad-based artillery brigade fields almost 50 percent more artillery pieces than the Crimea-deployed artillery regiment. Kaliningrad also enjoys short-range ballistic missile capability, whereas Crimea does not. However, an airborne battalion for quick-reaction operations has been established in the peninsula, while the enclave only relies on airborne reinforcements.

The structure of the 22nd Army Corps is unclear. Its HQ is located in Simferopol.⁸⁷ It comprises the 8th Artillery Regiment in Chaikovske. The unit is equipped with 9P157 Khrizantema ATGMs, 2A65 "Msta-B" towed howitzers, and BM-27 Uragan and BM-21 Grad MLRSs.

The same base also hosts the 126th Coastal Defense Brigade, which also seems to be subordinated to the Corps.88 The brigade is a mixed unit. It has one battalion of T-72B3 tanks and three battalions of BTR-80s supported by the BM-21 Grad MLRS, the 9K114 Shturm antitank system, and D-30 howitzers.

The brigade was formed based on the Ukrainian 126th Coastal Defense Brigade, whose personnel stayed in Crimea following its annexation. The unit's base was significantly expanded post-2014, which included new garrisons and a new weapon storage area.

Air defense coverage for the corps grouping is provided by the 1096th Air Defense Regiment, which is deployed in Sevastopol. In 2017 Izvestia reported that the regiment would soon be equipped with the Buk-M2 and Buk-M3 air defense systems.⁸⁹ Then in 2020, *Izvestia* again reported on the unit, claiming that the plans to field Buks had been shelved because of lessons learned from Syria. The most current plans envisage equipping the regiment with the Tor-M2.90 However, as of late 2020, the main armament of the unit was still the 9A33 Osa.91

⁸⁷ Mil.ru, Министерство обороны Российской Федерации, https://function.mil.ru/news_page/country/more.htm?id=12260736@egNews.

⁸⁸ Павел Заволокин, С максимальной эффективностью, Красная Звезда 30 Oct. 2020, http://redstar.ru/smaksimalnoj-effektivnostyu/.

⁸⁹ Алексей Рамм, Крым усилят «Буками», Известия, 27 Feb. 2017, https://iz.ru/news/666738#ixzz4ZpP2xtWF.

⁹⁰ Алексей Рамм, Богдан Степовой, Заводи «Торы»: Севастополь защитят новейшие системы ПВО, Известия, 11 July 2019, https://iz.ru/897664/aleksei-ramm-bogdan-stepovoi/zavodi-tory-sevastopolzashchitiat-noveishie-sistemy-pvo.

⁹¹ Независимое Телевидение Севастополя, Военнослужащие Черноморского флота вернулись с учений «Кавказ-2020», nts-tv.com, 7 Oct. 2020, https://nts-tv.com/news/voennosluzhashchie-chernomorskogo-flotavernulis-s-30249/.

Also under the command of the 22nd Army Corps is the 127th Reconnaissance Brigade. This is the third brigade-level recce unit in the Russian armed forces, which confirms the attention being paid to the defense of Crimea.92

Ground operations are supported by the 133rd Logistics Brigade, which is permanently deployed to Bakhchysarai.93 Another support unit includes the 4th Independent NCB Regiment, which may be stationed in Sevastopol.94

By far the largest and the most capable ground unit under the command of the BSF is the 810th Naval Infantry Brigade, which is stationed in Sevastopol. The unit is the most combat-ready ground force/naval infantry unit within the BSF. Its personnel were deployed to operations in Eastern Ukraine in 2014 and Syria from 2016. This confirms that at least some of the personnel from the brigade have gained combat experience—some, possibly in two theaters—which has undeniably increased the overall level of professionalism within the unit.

The unit is lightly mechanized. It fields some 140 BTR-80A amphibious armored personnel carriers (APCs), which are divided into three naval infantry battalions. The 557th Naval Infantry Battalion and 542nd Air Assault Battalion⁹⁵ are based in Sevastopol. The 382nd Naval Infantry Battalion is stationed on the other side of the Kerch Strait, in Temryuk. These subunits are supported by an artillery battalion, which fields the 2S1 Gvozdika SPH, the 2S9 Nona selfpropelled mortar, and the BM-21 Grad MLRS for counterbattery fires. The brigade also fields antitank capability through the deployment of the self-propelled 9K114 Shturm-S antitank missile system.

According to *Izvestia*, one battalion of every naval infantry brigade will be equipped with a new BMP-3F amphibious assault vehicle. The main reason behind this decision seems to be the need to up-armor landing forces and to ensure an adequate level of initial firepower and increased survivability when conducting amphibious operations. The 382nd Naval Infantry Battalion,

⁹² The other two are the 96th Reconnaissance Brigade (WMD) and 100th Reconnaissance Brigade (SMD). Интерфакс АВН, Подразделения армейского корпуса Черноморского флота проводят в Крыму учения на полигонах боевой подготовки, Интерфакс ABH, 23 June 2018, https://www.militarynews.ru/story.asp?rid=1&nid=484509&lang=RU.

⁹³ Дмитрий Скобликов, Сегодня отдельная 133-я бригада материально-технического обеспечения Черноморского флота отметила 5 лет со дня создания, Bahchisaray.rk.gov.ru, 6 Dec. 2019, https://bahchisaray.rk.gov.ru/ru/article/show/1529.

⁹⁴ Вести Севастополь, Учения отдельного полка радиационной, химической и биологической защиты, Вести Севастополь, 31 May 2018, https://www.youtube.com/watch?v=RKlQ4a0-Avo.

⁹⁵ The battalion has a jump status.

which practiced the utilization of the vehicle in such a role during the Kavkaz-2020 operational-strategic exercise, is the first subunit to undergo this conversion.⁹⁶

The drive to increase the firepower of naval infantry brigades is clear and evident. Tank companies have already been formed in the 155th and 40th Naval Infantry Brigades (Pacific Fleet).97 With new BMP-3F battalions, the entire force is becoming increasingly mechanized and powerful but also "heavy" to deploy—less flexible, and requiring a more complex logistics footprint.

Naval components

Of all the naval fleets, the BSF has undergone the largest expansion and modernization since 2014. This pertains to all aspects of its functioning and includes new combat and support vessels, new capabilities that go with them, and new ground components that support naval operations both in the offense and defense.

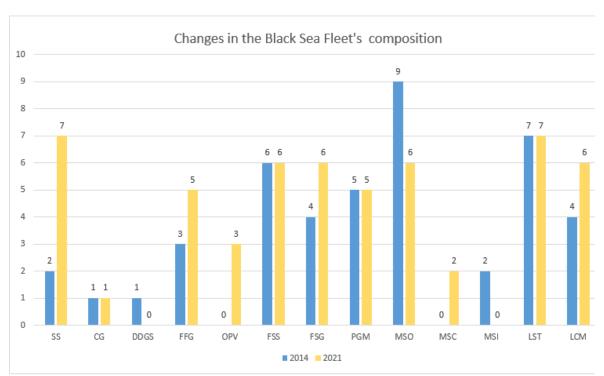
As of mid-2021, the fleet deploys seven submarines and 47 combat ships of various types. The latter number includes one guided-missile cruiser, five frigates, three offshore patrol vessels, six small antisubmarine warfare (ASW) ships, six guided-missile corvettes, five guided-missile boats, six seagoing minesweepers, two base minesweepers, seven landing ships, and six landing crafts.98 Figure 11 shows the changes in the composition of the BSF naval assets between 2014 and 2021.

⁹⁶ Дмитрий Болтенков, Высадка на броне: для чего морских пехотинцев вооружат БМП-3, Известия, 13 Oct. 2020, https://iz.ru/1074707/dmitrii-boltenkov/vysadka-na-brone-dlia-chego-morskikh-pekhotintcevvooruzhat-bmp-3 and Павел Заволокинк, Лидеры в чёрных беретах, Красная Звезда, 7 Dec. 2020, http://redstar.ru/lidery-v-chyornyh-beretah/.

⁹⁷ Regnum, Танки Т-80БВ поступили на вооружение Тихоокеанского флота , Regnum, 10 Sept. 2019, https://regnum.ru/news/2713929.html.

⁹⁸ Russianships.info, Боевые корабли и подводные лодки Российской Федерации – 2021, 10 May 2020, http://russianships.info/today/.

Figure 11. Changes in the Black Sea Fleet's composition, 2014 to 2021



Notes: SS = Attack submarine; CG = Cruiser, Guided; DDGS = Guided Missile Destroyer Surface; FFG = Guided Missile Frigate; OPV = Offshore Patrol Vessel; FSS = Small ASW Ship; FSG = Small Missile Ship; PGM = Guided Missile Boat; MSO = Seagoing Minesweeper; MSC = Coastal Minesweeper; MSI = Inshore Minesweeper; LST = Landing Ship; LCM = Landing Craft.

Source: Russianships.com, Military Balance 2014.

Out of the seven submarines, six are relatively new Project 636.3 Varshavyanka-class (Improved Kilo-class) submarines delivered between 2014 and 2016. One Project 887V (Alrosa) is also listed as serving within the BSF; however, the boat has been reported to be a subject of modernization.⁹⁹ Once completed, Alorsa could be handed over to the Baltic Sea Fleet. However, it should also be noted that the discussion about the redeployment of this

⁹⁹ Korabel.ru, Старейшая подлодка ЧФ сможет выполнять задачи первой линии флота после ремонта ВМФ, Korabel.ru, 19 Mar. 2021,

https://www.korabel.ru/news/comments/stareyshaya_podlodka_chf_smozhet_vypolnyat_zadachi_pervoy_linii_fl ota_posle_remonta.html.

particular boat has been ongoing since 2018. It is unclear at what stage the upgrade process is or whether the delivery to the Baltic Sea would at all occur.

The average age of a ship serving under the BSF is 23 years, which makes the fleet the youngest within the Russian Navy, by a significant margin. 100

The BSF is divided into two main naval bases. Most of the fleet is located in Sevastopol, and the naval base in Novorossiysk predominantly houses subsurface forces.

The Black Sea Fleet's operational control is exercised through the 224th Independent C2 Battalion from Simferopol. The fleet also maintains control over the 720th Logistics Point in Tartus, Syria, and thus manages logistics support of the Russian naval operations there, and wider in the Mediterranean. 101

The naval base in Sevastopol houses the 30th Surface Ship Division, which fields the most capable vessels with the BSF.¹⁰² The unit fields three Project 11356 Admiral Grigorovich-class frigates delivered between 2016 and 2017, marking the first time the BSF received a new bluewater warship since the end of the Cold War. The frigate is a multipurpose surface combatant that can conduct ASW and antiair operations. The incorporation of 3M54T and 3M14T missiles allows Project 11356 frigates to attack surface targets on land and sea.

Also in Sevastopol is the 197th Landing Ship Brigade, which supports amphibious operations of the 810th Naval Infantry Brigade. 103 The brigade deploys seven landing ships—too few to sealift the entire brigade. This problem will become more acute as naval infantry units become heavier through the deployment of BMP-3s and main battle tanks. To address this deficiency in maritime transport capability, the navy is building two Project 23900 amphibious assault ships (LHDs) at the Zaliv Shipyard in Kerch in Crimea. The exact details of these vessels are unclear. Various sources cite different sizes and displacements. It is safe to assume that one Project 23900 ship will be able to lift around two naval infantry battalions along with some 70-

¹⁰⁰ The average ages for the other fleets are as follows: Baltic Sea Fleet, 30 years; Northern Fleet, 30 years; Pacific Fleet, 28 years; Caspian Flotilla, 26 years. Author's calculations, based on data obtained from Russianships.com.

¹⁰¹ Торwar.ru, Будни на российской военно-морской базе в Тартусе, Сирия, topwar.ru, 8 Sept. 2015, https://topwar.ru/82045-budni-na-rossiyskoy-voenno-morskoy-baze-v-tartuse-siriya.html.

¹⁰² These include Moskva, the Project 1164 Slava-class guided missile cruiser; three Project 11356 Admiral Grigorovich-class frigates (Admiral Grigorovich, Admiral Essen, Admiral Makarov); and two Project 1135 Krivakclass frigates (Ladnyi, Pytlivyi). Smetlivyi, a Project 61 Kashin-class destroyer, at that time the oldest destroyer within the Russian Navy, was converted into a museum in mid 2020. ИА «Севастополь», Севастополь берет шефство над 30 дивизией надводных кораблей, ИА «Севастополь», 12 Sept. 2020, https://stv92.ru/novosti/obshchestvo/sevastopol-beret-shefstvo-nad-30-diviziey-nadvodnykh-korabley/.

¹⁰³ It is composed of five ships: BDK "Nikolay Filchenkov" 152; large landing craft "Orsk" 148; BDK "Saratov" 150; BDK "Azov" 151; BDK "Novocherkassk" 142; large landing craft "Caesar Kunikov" 158; BDK "Yamal."

80 pieces of heavy equipment. In addition, it will host an air group consisting of more than 10 heavy helicopters—not limited to sea-based Ka-31s and Ka-27s, but also multipurpose ones. 104 That said, because Russian sealift capabilities, in general, are insufficient, different theaters can receive higher priority in terms of the delivery of new amphibious assault vessels. For this reason, Project 23900 LHDs are more likely to be delivered to the Northern and Pacific Fleets first, rather than to the BSF.

Apart from these units, there are also a number of various ground components that support naval operations. These are the 388th Recce Point, 105 the 529th Communication Centre, the 15th Coastal Missile and Artillery Brigade (all three are based in Sevastopol), and the 68th Engineering Regiment (Yevpatoriya).

The 68th Engineering Regiment is composed of two battalions: naval engineering and basing support. Altogether they fulfil a wide range of tasks. These include creating mine barriers on land and water to prevent amphibious assaults, installing floating berths, providing equipment for surface and subsurface vessels, and providing fuel, lubricants, and water. They are also tasked with conducting mine-clearing operations and engineering reconnaissance. 106

The creation of Russian military bases and units in Crimea was hurried and to an extent based on Ukrainian servicemen who opted to switch their allegiance and stay in the peninsula following the annexation. At the same time, some units were established from equipment redirected from bases in mainland Russia, as was the case with the 15th Coastal Missile and Artillery Brigade, which was stood up based on a coastal missile squadron redeployed from the Caspian Sea. The brigade is equipped with one squadron each of K-300P Bastion-P and Bal coastal defense systems.¹⁰⁷

The Bal is equipped with the sea-skimming Uran Kh-35 missile (SS-N-25 Switchblade). Its range does not exceed 130 km, although the upgraded Kh-35U missile "is claimed to have twice

¹⁰⁴ Центр АСТ, Интервью генерального директора АО «Судостроительная Корпорация «Ак Барс» Рената Мистахова, Центр ACT, 28 Aug. 2020, https://bmpd.livejournal.com/4126313.html.

¹⁰⁵ Subordinated to the GRU command. Коммерсантъ, Морскую разведку слегка штормит, Коммерсантъ, 30 Jan. 2019, https://www.kommersant.ru/doc/3867782.

¹⁰⁶ Павел Заволокин, У витязей двух стихий в Крыму много работы, Красная Звезда, 19 Jan. 2018, http://redstar.ru/u-vityazej-dvuh-stihij-v-krymu-mnogo-rabot.

¹⁰⁷ Екатерина Решетникова, Юрий Реутин, В 15-й отдельной береговой бригаде ЧФ провели день открытых дверей, Независимое Телевидение Севастополя, 19 Nov. 2019, https://nts-tv.com/news/v-15-yotdelnoy-beregovoy-brigade-chf-proveli-den--22960/, and Телеканал Звезда, Ракетные комплексы «Бал» уничтожили «вражеский» корабль в Крыму, Телеканал Звезда, 4 Feb. 2021, https://www.youtube.com/watch?v=VgVvDuffmyw.

the range, satellite navigation and a better radar seeker." 108 Bastion-P is a "heavier" system designed to engage high-value targets such as aircraft carriers. Compared to Bal, which carries up to eight missiles, each Bastion-P has only two missiles. The system shoots missiles that have a longer range, up to 350 km.¹⁰⁹ Both systems have a land-attack mode.

The BSF also has an organic electronic warfare unit. Located on Cape Fiolent, the 475th Independent Electronic Warfare Centre is tasked with degrading opposing forces' networks and intelligence, surveillance, and reconnaissance (ISR) capability. The unit deploys the Murmansk-BM strategic jamming system, which is designed "to suppress the use of highfrequency radio communications across large areas."110 It can, however, have a dual role, in that it can also undertake strategic technical intelligence.¹¹¹

The Black Sea Fleet also maintains a presence in Russia proper, on the other side of the Kerch Strait, although it is not as robust as in Crimea.

All combat units in this region are deployed in Novorossiysk. The naval base there houses the 4th Submarine Brigade, 183rd Rescue Ship Squadron, 55th Independent Squadron of Hydrographic Vessels, and 184th Sea Protection Ship Brigade. Counter-sabotage capability rests with the 136th Detachment of Counteraction Underwater Diversionary Forces and Facilities.

The first unit, the submarine brigade, is the jewel of the BSF. The unit fields six Project 636.3 (Improved Kilo) SKKs, which were delivered to the fleet between 2014 and 2016—an unusual pace by Russian standards. This pace, in turn, indicated the sense of urgency to upgrade the fleet with newly built vessels. They can be equipped with both torpedoes and mines, but also with cruise missiles that can engage sea- and land-based targets. Project 636.3 also possesses an antiair capability through the deployment of MANPADs. These six vessels are enough to maintain a continuous presence in the Mediterranean with two to three subs, and can be increased by one or two additional vessels, if needed.

¹⁰⁸ FOI, Bursting the Bubble? Russian A2/AD in the Baltic Sea Region: Capabilities, Countermeasures, and Implications, Mar. 2019, p. 34, https://www.foi.se/rest-api/report/FOI-R--4651--SE.

¹⁰⁹ FOI, Bursting the Bubble? Russian A2/AD in the Baltic Sea Region: Capabilities, Countermeasures, and Implications, Mar. 2019, p. 33, https://www.foi.se/rest-api/report/FOI-R--4651--SE.

¹¹⁰ Jonas Kjellèn, Russian Electronic Warfare. The role of Electronic Warfare in the Russian Armed Forces, FOI, 04.10.2018, p. 32, https://www.foi.se/rapportsammanfattning?reportNo=FOI-R--4625--SE

¹¹¹ Jonas Kjellèn, Russian Electronic Warfare. The role of Electronic Warfare in the Russian Armed Forces, FOI, 04.10.2018, p. 32, https://www.foi.se/rapportsammanfattning?reportNo=F0I-R--4625--SE.

Lastly, in Utash, the BSF maintains the second Bal/Bastion P-equipped Brigade, the 11th Missile and Artillery Brigade, which is tasked with protecting the eastern approaches of the Black Sea to the Russian coast.112

BSF air components

Russian air assets in Crimea include five aviation regiments. Three of those are subordinated to the 4th Air and Air Defense Army (described above), and the remaining two are commanded by the BSF HQ. According to Izvestia, the two regiments are subordinated to the 2nd Naval Aviation Division, although it is unclear whether this unit has been established. 113

The 43rd Independent Naval Attack Aviation Regiment is stationed at the Saki Air Base. The regiment fields two squadrons. One is equipped with a mix of Su-24Ms and Su-24MRs. The other consists exclusively of Su-30SMs that were delivered to the unit between 2015 and 2016. In the long term, the Su-30SMs are to replace Su-24s, but, given the slow pace of combat aircraft deliveries to naval aviation units, this is unlikely to occur soon. This gives a total of some 24 combat aircraft deployed at the base.

The second unit is the 318th Composite Aviation Regiment, deployed at Kacha Air Base. According to Piotr Butowski, a renowned Russian aviation journalist, the regiment has one ASW squadron equipped with Ka-27s, and one transport and rescue squadron with An-26s and Ka-27PS and Mi-8 helicopters. Some Be-12s are also deployed within the unit. 114

The regiment also fields a Forpost UAV squadron. In this case, it can also supplement the 43rd Naval Attack Aviation Regiment in persistent reconnaissance and post-strike assessment capability. The UAVs can also be used as target designators for air, naval, and ground strike complexes.115

¹¹² Kubnews.ru, На Кубани в параде Победы примет участие более тысячи военнослужащих Новороссийского гарнизона, Кубанские Новости, 24 June 2020, https://kubnews.ru/obshchestvo/2020/06/24/na-kubani-v-parade-pobedy-primet-uchastie-bolee-tysyachivoennosluzhashchikh-novorossiyskogo-garnizo/.

¹¹³ Алексей Козаченко, Алексей Рамм, Богдан Степовой, Роман Крецул, Евгений Дмитриев, НАТО так надо: новые авиадивизии закроют небо над Балтикой и Крымом, Известия, 30 Oct. 2019, https://iz.ru/905530/aleksei-kozachenko-aleksei-ramm-bogdan-stepovoi-roman-kretcul/nato-tak-nado-novyeaviadivizii-zakroiut-nebo-nad-baltikoi-i-krymom.

¹¹⁴ Piotr Butowski, Flashpoint Russia: Russia's Air Power: Capabilities and Structure (Vienna: Harpia Publishing, 2019), p. 115.

¹¹⁵ Алексей Козаченко, Роман Крецул, Алексей Рамм, Присмотрят свысока: Крым укрепят эскадрильей БПЛА «Форпост», Известия, 14 Aug. 2019, https://iz.ru/909392/aleksei-kozachenko-roman-kretcul-alekseiramm/prismotriat-svysoka-krym-ukrepiat-eskadrilei-bpla-forpost.

The Caspian Flotilla

Subordinated to the Southern Military District is also the Caspian Flotilla. Although the smallest naval force within the Russian Navy, it is also relatively modern, thanks to an influx of modern equipment and reorganization over recent years. Figure 12 shows the main naval base in Kaspyisk.

Russian military facilities in Kaspiysk

Figure 12. Caspian Flotilla units in Kaspyisk

Source: Google Earth. Image date 4 May 2021.

The Caspian Flotilla safeguards Russian interests around the Caspian Sea basin, which include the protection of maritime trade and Russia's offshore oil and gas fields. At the same time, Moscow wishes to remain a powerful, or even dominant, player in the region to ensure the security of its southern flank. Furthermore, the addition of long-range strike capability allows Russian ships operating in the Caspian to project power far beyond Russia's borders.

The flotilla's HQ has been a subject of relocation. In 2018 Shoigu stated that the HQ would be moved from Astrakhan to Kaspyisk, which would place Russia's main naval base at the center of the sea and thus reduce time for the deployment of forces to the Caspian. 116 As of mid 2021 the relocation has not yet occurred, although the process is expected to conclude by the end of 2022 at the latest. It is noteworthy that the June 2020 naval parade celebrating the Day of the Russian Navy was held in Kaspiysk—not in Astrakhan, where the flotilla's HQ is still located.

The flotilla fields 27 vessels, with an average age of 26 years. 117 Around half of the vessels were delivered between 1969 and 1999, and the remainder were inducted in the 21st century. The core of the fleet relies on two Project 11661K Gepard-class guided-missile ships, and six Project 21630/21631 Buyan and Buyan-M small missile ships (three each).

Other vessels operating under the flotilla command include one Project 12411T Tarantul-class missile boat, one Project 1400M Zhuk-class patrol boat, and four Project 1204 artillery gun boats. Mine and antimine warfare is provided by two Project 1265 Sonya-class coastal minesweepers, one Project 1258 Yevgenya-class inshore minesweeper, two Project 10750 Lida-class inshore minesweepers, and two Project 697 inshore minesweepers. 118

The flotilla also has an amphibious landing capability, through the deployment of six landing crafts (one Project 21820 Dyugon-class, four Project 11770 Serna-class, and one Project 1176 Ondatra-class vessels).

It is understood that at least one naval brigade has been redeployed to Kaspyisk. This is the 106th Sea Protection Ship Brigade;¹¹⁹ the 73rd Sea Protection Ship Brigade is still at Astrakhan.¹²⁰ Satellite imagery from March 2020 also shows amphibious vessels moored at the naval base in Astrakhan. It is unclear whether the 242nd Landing Ship Squadron has been deployed to Kaspyisk since then.

Three additional units are also understood to be deployed to Astrakhan. They include a group of support vessels, a group of hydrographic vessels, and the 293rd Search and Rescue Detachment.

¹¹⁶ Алексей Никольский, Каспийская флотилия переезжает в Дагестан, З Арг. 2018, Ведомости, https://www.vedomosti.ru/politics/articles/2018/04/03/755647-kaspiiskaya-flotiliya

¹¹⁷ Russianships.info, Боевые корабли и подводные лодки Российской Федерации – 2021, 10 May 2020, http://russianships.info/today/.

¹¹⁸ Ibid.

¹¹⁹ Riadagestan.ru, Как пройдет военно-морской парад Каспийской флотилии в Дагестане, Республиканское Информационное Агентство Дагестан, 15 July 2020,

[/]https://riadagestan.ru/news/security/v_dagestane_proydet_voenno_morskoy_parad_kaspiyskoy_flotilii/.

¹²⁰ The naval base is located in Zolotoy Zaton, Astrakhan.

Naval facilities are protected by the 137th Detachment of Counteraction Underwater Diversionary Forces and Facilities, also likely deployed in Astrakhan. It cannot be excluded that a second detachment has been established in Kaspyisk to provide underwater combat, mining, and demining operations, and protect fleets' assets against the enemy's naval special forces.

Recent years have seen the largest upgrade in terms of capabilities related to ground-based components. First, in 2018 the 177th Naval Infantry Regiment was formed in Kaspyisk. 121 The regiment forms the backbone of the Caspian Flotilla's expeditionary capability. It is composed of two naval infantry battalions and a 122-mm D-30 howitzer battery. The 414th Naval Infantry Battalion is stationed in Kaspyisk, and the 727th Naval Infantry Battalion is located in Astrakhan.¹²² Reportedly, a third naval infantry battalion with an air assault company has also been established, but it is unclear where it is located. 123

Another addition to the regiment's order of battle includes a reconnaissance battalion, which has a Spetsnaz company within its structure.

The 177th Naval Infantry Regiment is reported to be more "mobile" than a typical naval infantry brigade. Apart from the standard tasks of conducting amphibious landings, its tasks will include deep reconnaissance, serving as forward air observers for artillery, aviation, and cruise missile-equipped assets.¹²⁴

Lastly, in 2011 the Caspian Flotilla received one battalion of the 3K60 Ball Coastal Defense Missile System, ¹²⁵ which concluded the forming of the 46th Separate Coastal Missile Squadron. The unit was subsequently deployed into Crimea in 2014 to form the backbone of the 15th Coastal Missile Defense Brigade there. In its place, the 51st Coastal Missile Squadron was stood up in 2020.126

¹²¹ Шамиль Хайруллин, На Каспийской флотилии сформирован полк морской пехоты, 5 Dec. 2018, Красная Звезда http://redstar.ru/na-kaspijskoj-flotilii-sformirovan-polk-morskoj-pehoty/.

¹²² Шамиль Хайруллин, На Каспийской флотилии сформирован полк морской пехоты, 5 Dec. 2018, Красная Звезда http://redstar.ru/na-kaspijskoj-flotilii-sformirovan-polk-morskoj-pehoty/.

¹²³ Торwar.ru, Усиление морской пехоты Каспийской флотилии, topwar.ru, 6 July 2020, https://topwar.ru/172772-usilenie-morskoj-pehoty-kaspijskoj-flotilii.html.

¹²⁴ Роман Крецул, Евгений Дмитриев, Береты Каспийского моря: регион усилили батальоном морпехов, Известия, 10 Dec. 2019, https://iz.ru/942498/roman-kretcul-evgenii-dmitriev/berety-kaspiiskogo-moriaregion-usilili-batalonom-morpekhov.

¹²⁵ Mil.ru, Министерство обороны Российской Федерации, http://mil.ru/mcis/news/more.htm?id=11367131@egNews.

¹²⁶ Центр АСТ, Каспийская флотилия снова получила береговой ракетный комплекс «Бал», Центр АСТ, 9 Feb. 2020, https://bmpd.livejournal.com/3927068.html.

Conclusion

There are around 38 brigade- and regiment-level formations in the Southern Military District, excluding units subordinated to the VDV command and the Special Operations Forces Command (KSSO). Assuming that each naval infantry, and tank or motor rifle regiment/brigade can generate two infantry, tank, or motor rifle battalions, there are altogether some 30 battalions in the SMD that can conduct maneuver warfare. The addition of the third battalion would increase this number to over 40.127 Russian-controlled LPR and DPR forces will contribute 20-30 additional battalions. 128

The Western MD fields around 40 or 60 battalions, depending on the configuration. Altogether, these two districts alone can generate at least 50 battalions—and perhaps as many as 120—to undertake combined arms operations. Note that these figures reflect only the peacetime posture of the Russian Land Forces in those districts. The number of battalions would increase substantially if a total mobilization was announced.

¹²⁷ Inclusion of the 7th Air Assault Divison would further push these figures to around 36 and 48, respectively.

¹²⁸ Informnapalm.org, Intelligence data on 1st and 2nd Army Corps of Russian Federation in occupied Donbas, Informnapalm, 8 Sept. 2020, https://informnapalm.org/en/intelligence-data-on-1st-and-2nd-army-corps-ofrussian-federation-in-occupied-donbas/.

Ministry of Defense **Special Forces** General Staff Airborne Forces JSC South Rostov-on-Don 7th Air Assault Division 66th Air Assault Brigade (-> regi

Figure 13. Summary of Russian forces in the Southern Military District

Source: Author's assessment

Additional support of airborne and special forces formations allows Russia to defend its mainland against any conventional threat from Southern and Western operational directions.

The three CAA altogether have some 55,000 personnel. The addition of the 22nd Army Corps and the 810th Naval Infantry Brigade pushes this number to around 68,000-70,000 troops. But the SMD, is not expected to fight on its own. Additional troop movements into the district are likely, especially if there is a state-on-state conflict. These could include elements detached from the Western and Central MDs, with the latter serving as a swing district. It can provide reinforcements in any direction: it can either support the western/southern operational direction, or Russian units in the Eastern MD.

The current composition of Russian forces in the Southern Military District presents a force that can undertake operations in different environments and tackle different threats in distinctively different theaters.

The main driver behind changes to SMD's force posture is the need to contend with openly hostile Ukraine that emerged after Russian operations in Crimea and Eastern Ukraine throughout 2014-15. Reforms of the district's forces continue to be implemented along two paths. On the one hand, the armed forces add logistics and support (sub)units to their combined arms formations to ensure that these forces are adequately provisioned and maintained both before and during hostilities. These attempts, which have seen the establishment of engineering, evacuation regiments are, however, holistic to the armed forces and are not limited to one particular MD. The second reform reverses many decisions made by the previous minister of defense, Anatoly Serdyukov, which ultimately sought to create lighter land forces geared to operations in local conflicts closer to home, akin to the one in Georgia in 2008. Indeed, it seems that the structural reforms of the SMD are ongoing, given the conversion of the 19th MRB into a division-level formation in 2020 and reports indicating that the 136th MRB will also be expanded. When these plans are fully materialized, the SMD's 58th and 8th CAAs will no longer possess combined arms brigades within their structures. This only confirms the shift towards preparations high-intensity war. Consequently, the 49th CAA is the sole operational-level formation tasked with addressing insurgency and terrorist threats.

Air defense forces also are positioned to respond to a state-to-state conflict. Units subordinated to the 4th AADA provide effective coverage over strategically important sites and cities. Crimea is now solely protected by S-400 battalions, which means that its importance is similar to that of Saint Petersburg and Moscow. Even the Kaliningrad Oblast is protected by a mix of S-400s and S-300s. Although the size of the rotary-wing fleet is impressive, most assets deployed within the SMD are old. In recent years, deliveries of Su-34s and Su-30SMs have modernized the fleet; however, aviation capabilities still rely on Soviet-era aircraft.

Changes in force posturing and force structure in the past several years strongly favor the conduct of high-tempo, front-wide operations against a conventional enemy. Although some specialized formations for mountainous warfare operations are stationed in the district, it is clear that the focus is placed elsewhere. The main goal of the SMD units is to maintain pressure on Ukraine and deter any attempts by Kyiv to retake lost territories. This objective was the main reason behind the establishment of the 8th CAA and the introduction of airborne components into Crimea. These units, along with the Western MD forces, have surrounded Ukraine and can effectively conduct ground operations along any axis.

At the same time, moving beyond the ongoing conflict with Ukraine, the SMD forces control units located in occupied South Ossetia and Abkhazia and those deployed in Armenia. The BSF also continuously sustains maritime operation in the Mediterranean and is responsible for reinforcing Russian presence there during a crisis. Altogether, the SMD mission envelope is larger than that of other districts—even the WMD, which mostly focuses on threats posed by NATO.

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Abbreviations

AADA Air and Air Defense Army ADR Air Defense Regiment AOR Area of Responsibility Antisubmarine Warfare **ASW**

Black Sea Fleet **BSF**

C2 **Command and Control**

C4I Command, Control, Communications, Computing, and Intelligence

CAA Combined Arms Army

Chemical, Biological, Radiological, and Nuclear **CBRN**

DPR Donetsk People's Republic

EW Electronic Warfare

ISC Joint Strategic Command LPR Luhansk People's Republic **MLRS** Multiple-Launch Rocket System

Ministry of Defense MoD

NCB Nuclear, Chemical, Biological

SAM Surface to Air Missile **SIGINT** Signals Intelligence

Southern Military District **SMD**

TO&E Table of Organization and Equipment

UAV **Unmanned Aerial Vehicle**

VDV Vozdushno-Desantnye Voyska (Airborne Troops) VKS Vozdushno-Kosmicheskiye Sily (Aerospace Forces)

WMD Western Military District This page is intentionally left blank.

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