

# An Assessment of the **Russian Airborne Troops** and Their Role on Tomorrow's Battlefield

*By Jörgen Elfving*



**April 2021**

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# Executive Summary

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During the last several years, the Russian Airborne Troops (*Vozdushno-Desantnye Voyska*—VDV) have undergone important changes in organization as well as the procurement of equipment—a process that is by no means complete. For the foreseeable future, the VDV is set to expand the number of units and continue to introduce modern combat vehicles like the BMD-4M and BTR-MDM. At the same time, however, the changes represent at least a partial return to Soviet practices with the reintroduction of tank units and, in the next few years, helicopter and artillery units to the VDV. In addition, the Airborne Troops' exercise activities have shown an increased intensity, with progressively more comprehensive drills in recent years. The Russian military leadership clearly continues to see the VDV as having a crucial role to play on the current and future battlefield.

## Key Takeaways:

- The VDV has a long and proud history dating back to the 1930s and has participated in all armed conflicts in the Soviet Union's and Russian Federation's history since 1941.
- The Russian military leadership continues to see the VDV as having a crucial role to play on the current and future battlefield.
- The VDV comprises both airborne and air assault units, making this service a flexible instrument. The operational use of its units can be specially tailored depending on the enemy, weather, terrain and other factors.
- During the last few years, the VDV has experienced a remarkable development, including the addition of new units and the introduction of a wide range of new equipment.
- The airborne and air assault divisions are now regaining their third regiments, lost in the aftermath of the collapse of the Soviet Union.
- Not having organic fixed- and rotary-wing aircraft has been a drawback; but the VDV will, in the medium-term perspective, receive its own army aviation—i.e., helicopter—brigade.
- The VDV will, at an unspecified time, probably after 2025, obtain its own artillery brigade, which is a novelty for the service.
- The introduction of tank units has increased the firepower of the air assault units.

- So far, nine battalion sets of the modern BMD-4M and BTR-MDM combat vehicles have been delivered. However, older and upgraded BMD-2M combat vehicles are being retained for now.
- Combat support vehicles based on the BMD-4M and BTR-MDM will be introduced in the VDV and contribute to an increased fire power and operational capability.
- Although BMD-4Ms and BTR-MDMs can be air dropped with personnel onboard, this has only taken place on one occasion, when a BTR-MDM was dropped with a crew of three onboard.
- Over time, VDV exercises have become more frequent and complex.
- The majority of the soldiers in the VDV are contract soldiers, but about 20 percent of the personnel strength will, on a continuous basis, be made up of conscripts.
- As with Russian Naval Infantry, the Airborne Troops' Achilles' heel is a shortage of available transport assets. That shortage is likely to remain for the foreseeable future.
- If the plans for the further development of the VDV until 2025 can be fulfilled, Russia will possess a service that, to a certain extent, resembles its former Soviet self, with increased fire power, more capabilities and with a high degree of readiness. This will again make the VDV the tool of choice to be used in an initial phase of a conflict, like was the case in the Soviet interventions in Czechoslovakia and Afghanistan.

# Introduction

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The Russian Airborne Troops (*Vozdushno-Desantnye Voyska*—VDV) have, in recent years, undergone key organizational changes, obtained an influx of new equipment, and received a new commander.<sup>1</sup> Some of the most consequential advances have occurred since the summer of 2018; that year, the authorities notably finalized plans for the development of the service until 2030.<sup>2</sup> As noted by the commander of the VDV, Colonel General Andrei Serdiukov, in a December 2020 interview with *Izvestia*, “Today, the objective of the evolution of the Airborne Forces has become their development as the basis for a rapid-reaction force with an optimal combat strength, outfitted with the most modern weapons [and] battlefield and special equipment.”<sup>3</sup>

Yet with a few exceptions, these important developments saw surprisingly limited coverage even in media sources dedicated to closely tracking and analyzing Russia’s Armed Forces. The aim of this study is, therefore, to offer a detailed overview and assessment of recent progress within the VDV. Though, to understand where this uniquely Russian branch of service may be going, it is worth looking more closely at its historical origins.

The VDV has its roots in an experiment carried out by the Soviet Red Army on August 2, 1930, a date since 2006 celebrated as Airborne Troops’ Day. During an air force exercise on that day over Voronezh, a parachute unit of 12 men was dropped from a TB-3 bomber.<sup>4</sup> To the Soviet commanders, this experiment illustrated the benefits of parachute units seizing terrain in the enemy’s rear, and it became the starting point for the development of Soviet airborne units.<sup>5</sup> At the same time, the Soviet initiative was possibly also motivated by the experience, in April 1929, of transporting a small force by

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<sup>1</sup> Michael Kofman, “Rethinking the Structure and Role of Russia’s Airborne Forces,” *Russian Military Analysis*, January 30, 2019, <https://russianmilitaryanalysis.wordpress.com/2019/01/30/rethinking-the-structure-and-role-of-russias-airborne-forces/>.

<sup>2</sup> Aleksey Zakvazinf, “‘My vozrodim diviziyu’: kak ismenitsa Vozdushno-desantnye vojska k 2030 gody,” *RT*, May 7 2018, <https://russian.rt.com/russia/article/510528-vdv-plan-razvitiya-shamanov>.

<sup>3</sup> Roman Kretsul and Aleksei Ramm, “V sostave VDV poyavyatsya shturmovyesoedineniya novovo tipa,” *Izvestia*, December 12, 2020, <https://iz.ru/1101252/roman-kretsul-aleksei-ramm/v-sostave-vdv-poiaviatsia-shturmovye-soedineniia-novogo-tipa>.

<sup>4</sup> Daria Ivashkina, “Den VDV v 2020 godu: istoriya i traditsii prazdnika,” *Komsomolskaya Pravda*, accessed August 21, 2020, <https://www.kp.ru/putevoditel/kalendar-prazdnikov/den-vdv/>, Ukaz Presidenta Rossiskoy Federatsiy ot 31 maya 2006N 549, <https://rg.ru/2006/06/03/voennye-prazdniki-dok.html>.

<sup>5</sup> “Den VDV Rossii: istoriya i traditsii prazdnika,” *RIA Novosti*, August 2, 2013, <http://ria.ru/spravka/20130802/953267226.html>.

air to what is today Tajikistan, where it then annihilated the local insurgents.<sup>6</sup> By 1933, parachute units were organized in the Byelorussian, Ukrainian, Volga and Moscow military districts; and in 1935, the military held a major exercise in the Kiev Military District, where airborne units notably took part—the motorized regiment of the 3<sup>rd</sup> Aviation Brigade and a composite parachute regiment.<sup>7</sup> Before the eyes of foreign military attachés, 1,188 Soviet paratroopers jumped out of airplanes; after reaching the ground, these forces quickly prepared a landing field, to where additional units could be airlifted.<sup>8</sup> As of summer 1941, the Soviet authorities managed to organize five airborne corps of 10,000 soldiers each; and in September 1941, the People’s Military Commissariat ordered the organization of another five corps that had to be operational as of February 1, 1942.<sup>9</sup>

During the Great Patriotic War,<sup>10</sup> the Soviet Union carried out a number of airborne operations, but all of them were hampered, to one degree or another, by the poor availability of transport aircraft and shortcomings in planning and implementation. As a result, the Soviet airborne operations neither achieved great success, nor lived up to Moscow’s pre-war expectations regarding the wartime use of airborne forces. Between 1941 and 1945, the airborne forces there, thus, effectively relegated to a separate ground force service, albeit of an elite character.<sup>11</sup> In the course of the war, the airborne forces’ designations and composition also changed a number of times; and by April 1945, there were only three airborne divisions in the Soviet Armed Forces.<sup>12</sup>

Starting in 1946, Soviet airborne units were transferred to the Ground Forces and, at the same time, formed part of the reserve of the Soviet military headquarters, while subordinated to the minister of defense. In the aftermath of the Second World War, Red Army airborne forces fought the Lithuanian partisan “Forest Brothers”; also at this time, the high command began drafting new plans for their further development.<sup>13</sup> Throughout the postwar period, airborne units were provided with new equipment, including combat vehicles, artillery and modern anti-tank weapons, significantly

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<sup>6</sup> “Vozdushno-desantnye voyska,” *Ministry of Defense of the Russian Federation*, accessed January 17, 2021, [https://structure.mil.ru/structure/forces/airborne/history/historical\\_sketch.htm](https://structure.mil.ru/structure/forces/airborne/history/historical_sketch.htm)

<sup>7</sup> “Pervy v mire massoviy desant. Pamyatnyi den istorii VDV,” *Museum VDV*, accessed January 17, 2021, <http://museumvdv.ru/news/pervyy-v-mire-massovyy-desant-pamyatnyy-den-istorii-vdv.html>.

<sup>8</sup> *Ibid.*

<sup>9</sup> Roman Alekhin, *Vozdushno-desantnye voyska: istoriya rossiskiykovo desanta*, (Eksmo, Moscow, 2009), 98.

<sup>10</sup> In Russian historiography, the Great Patriotic War denotes the Soviet Union’s conflict with Nazi Germany during World War II, between June 22, 1941, and May 9, 1945.

<sup>11</sup> Alekhin, *Vozdushno-desantnye voyska*, 167–186

<sup>12</sup> *Ibid.*, 147.

<sup>13</sup> *Ibid.*; Chast Tretya. 1945–1967 godu, 167–261.

increasing their firepower. And as new transport aircraft—An-12s, An-22s and Il-76s—entered service, it finally became possible to more routinely aerially transit and drop not only personnel but also equipment. The driving force behind the development of the airborne forces was their legendary commander, Vasily Margelov (1954–1959, 1961–1979).<sup>14</sup> His impact on the service was so great that the abbreviation VDV jokingly became referred to as *Voyska Dyadi Vasi*—“Uncle Vasya’s Troops.”

The VDV has regularly participated in major Soviet exercises during the postwar period as well as in the invasions of Hungary (1956) and Czechoslovakia (1968) and, not least, the war in Afghanistan (1979–1989). Following the collapse of the Soviet Union, the now-Russian VDV took part in the two Chechen wars (1994–1996, 1999–2000), the war with Georgia (2008), the annexation of Ukraine’s Crimean Peninsula (2014) and the ensuing conflict in Ukrainian Donbas (particularly, 2014–2015). The airborne forces’ experience in Afghanistan continues to play a key role, as do the lessons learned in Georgia in 2008, in influencing some of the VDV’s organizational changes implemented over the past several years—as well as the announced reforms planned for the near future.

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<sup>14</sup> Svyatoslav Knyazev, “‘Kalassik voennovo ickusstva’:kakyu rol Vasilij Margelov cygral v istorii otechestvennykh booruzhonnnyx cil,” *RT*, December 27, 2018, <https://russian.rt.com/science/article/587649-istoriya-vdv-vasilii-margelov>.

# Organization

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The VDV was split off from the Ground Forces in 1964 (in conjunction with the organization of new air-assault units), becoming a separate branch of service. By the end of the Soviet era, it comprised seven airborne divisions, of which only two were located in the Russian Soviet Federative Socialist Republic (i.e., what after 1991 became the Russian Federation).<sup>15</sup> As a result of a meeting of the presidents of Russia, Kazakhstan, Kirgizstan and Uzbekistan, in Tashkent, in 1992, an agreement was reached concerning the division of the former Soviet units, including the airborne forces, between the former Soviet republics.<sup>16</sup> In 1992–1993, the airborne units garrisoned outside the former Russian Soviet Federative Socialist Republic were relocated to Russia, and the Russian Airborne Troops were officially established as a result of the presidential decree of May 7, 1992.<sup>17</sup>

The aforementioned air-assault units, which, until 1988, were not part of the VDV, but of the Ground Forces, in 1986 consisted of approximately 16 brigades, 2 regiments and 20 battalions, with a total wartime strength of 65,000–70,000 soldiers.<sup>18</sup> In connection with the airborne units, it should be noted that the air-assault brigades organically had an included helicopter regiment for transport and support tasks.<sup>19</sup>

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<sup>15</sup> Viktor Syunkov, *Boevaya Moshch SSSR* (Moscow 2017), 294.

<sup>16</sup> “Istoriya VDV,” *Taganrog.parashyutist-61.rf*, accessed January 17, 2021, [http://taganrog.parashyutist-61.pф/?page\\_id=58](http://taganrog.parashyutist-61.pф/?page_id=58).

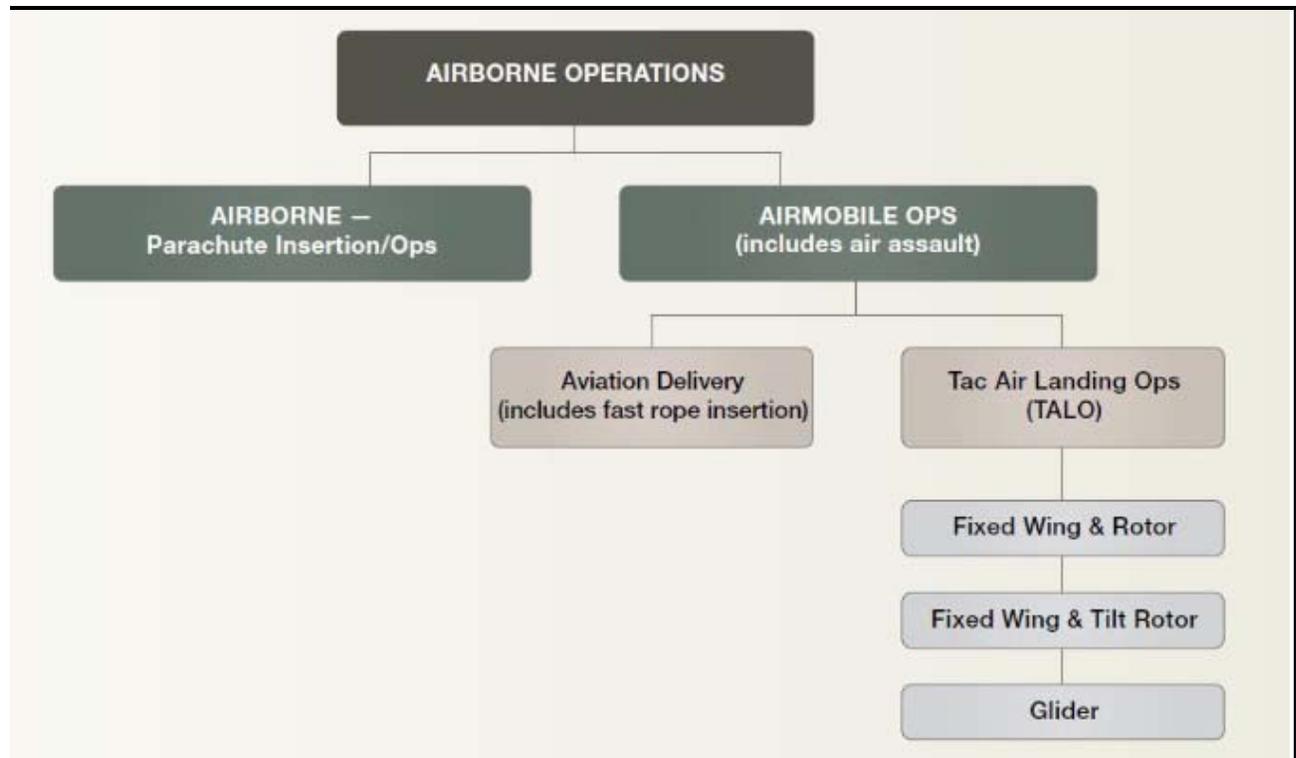
<sup>17</sup> “Vozdushno-desantnye voyska Rossiskoy Federatsii,” *Wikimedia Commons*, accessed January 17, 2021, <https://ru.wikipedia.org/>; “Ukaz presidenta Rossiskoy Federatsii ot 07.05.1992 g. N°466,” *Kremlin.ru*, accessed January 17, 2021, <http://www.kremlin.ru/acts/bank/1279>.

<sup>18</sup> Viktor Syunkov, *Boevaya Moshch SSSR* (Moscow 2017), 295.

<sup>19</sup> Syunkov, *Boevaya Moshch*, 295.

## Fact Box<sup>20</sup>

Airborne and air-assault units are used to engage and destroy enemy forces or to seize and hold key terrain in the depth of enemy territory, often using the element of surprise. Airborne and air-assault units both carry out airmobile operations (see graphic below) but differ when it comes to means of insertion, equipment, etc.



In simplest terms, **airborne forces** are military units moved by aircraft and “dropped” into battle, whereas **air-assault units** are moved into battle by rotary-wing aircraft.

In the modern VDV, there are two air-assault divisions and four air-assault brigades. The latter units, besides using rotary-wing aircraft for insertion, can also be air-dropped into battle because these air-assault brigades organically have a constituent airborne battalion.

<sup>20</sup> “Airborne Forces,” *Wikimedia Commons*, accessed January 17, 2021, [https://en.wikipedia.org/wiki/Airborne\\_forces](https://en.wikipedia.org/wiki/Airborne_forces), Definitions, <https://www.definitions.net/definition/AIR+ASSAULT>; David Stead, “Bellerophon Revitalised: A New Airborne Force Employment Concept for the Canadian Army,” *Canadian Forces College*, October 14, 2018, <https://www.cfc.forces.gc.ca/259/290/308/192/stead.pdf>; “Vozdushno-desantnye voyska,” *Ministry of Defense of the Russian Federation*, accessed January 17, 2021, <https://structure.mil.ru/structure/forces/airborne/structure.htm>.

These above-described units, as well as the Armed Forces in general, were all dramatically affected by the dissolution of the Soviet Union, which led to units being disbanded or relocated to new garrisons and their exercise activities being drastically reduced. During this process, the divisions' third regiment was disbanded in order to beef up remaining units in the divisions.<sup>21</sup> The personnel strength of the VDV during the Soviet period, then about 80,000, was reduced to around 35,000; and the air-assault units were returned to the Ground Forces before being quietly dissolved in 1996.<sup>22</sup> The radical long-term reforms of the Russian Armed Forces, initiated in 2008, partially excluded the VDV, which underwent its own reforms already in 2006, when the Russian government adopted a five-year development program for the service.<sup>23</sup> Among other things, this program divided the Airborne Troops into separate parachute and air-assault units. Yet as a result of the wider reforms initiated in 2008, several of the VDV's airborne units were disbanded and the number of officer positions was reduced, similar to what was happening in the other Russian branches and arms of service. Furthermore, the aircraft and helicopters belonging to the VDV were transferred to the Air Force (*Voyenno-Vozdushnye Sily—VVS*).<sup>24</sup> At the same time (2008–2009), some officials sought to reorganize the VDV's airborne divisions into brigades, mirroring the process underway in the Ground Forces. However, the then-newly appointed commander of the VDV, Colonel General Vladimir Shamanov, managed to stave these efforts off.<sup>25</sup>

The Airborne Troops are presently subordinated directly to the Russian commander in chief—i.e., the president—but can also be subordinated the commanders of the military districts/strategic-operational commands or constitute a reserve for the minister of defense. According to the commander of the VDV,

Presently, the Airborne Troops are an independent, highly mobile branch of the Armed Forces. [The VDV] is designed as the basis of the rapid-reaction forces for a prompt response to the emergence of aggression, [and] the localization and suppression of an armed conflict at an early stage of its development, both on the territory of our country and beyond its borders.

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<sup>21</sup> “Snova sformirovan 237-y polk v sostave 76-y gvardeyskoy desantno-shturmovoy divizi,” December 16, 2018, <https://bmpd.livejournal.com/3457385.html>.

<sup>22</sup> Desantura.ru, <http://desantura.ru/ru/>; Mariya Voluyskaya, “Skolko v Rossii sluzhit desantnikov?” *Argumenty i Fakty*, August 1, 2018, [http://www.aif.ru/society/army/skolko\\_v\\_rossii\\_sluzhit\\_desantnikov](http://www.aif.ru/society/army/skolko_v_rossii_sluzhit_desantnikov).

<sup>23</sup> Konstantin Rashepkin, “Desant na vzlete: Boyevoy potentsial VDV uvelichivayetsya s kazhdym periodom obucheniya,” *Krasnaya Zvezda*, March 24, 2007, [http://old.redstar.ru/2007/03/24\\_03/2\\_01.html](http://old.redstar.ru/2007/03/24_03/2_01.html).

<sup>24</sup> Mikhail Barabanov, *Russia's New Army* (Centre for Analysis of Strategies and Technologies, Moscow 2011), 39.

<sup>25</sup> Rod Thornton, *Organizational change in the Russian airborne forces: The lessons of the Georgian conflict* (Strategic Studies Institute, Carlisle, PA, December 2011), 29–33; “Komanduyushchiy VDV oproverg slukhi o desante,” *Sdelano u Nas*, May 21, 2012, <http://sdelanounas.ru/blogs/17601?pid=127217>, <https://echo.msk.ru/blog/planperemen/2286330-echo/o>.

In wartime, “the blue berets” will parachute behind enemy lines and go into battle in order to disrupt command of units, weapons and communications, to capture and destroy critical facilities, disrupt the formation and deployment of reserves. Furthermore, the Airborne Troops are capable of solving many other important tasks, both independently and in cooperation with units of the military districts. In addition, the Airborne Troops are the main component of the Collective Rapid Reaction Force of the Collective Security Treaty Organization [CSTO].<sup>26</sup>

The following units are today included in the VDV:<sup>27</sup>

- Airborne divisions
  - 98<sup>th</sup> Guards Airborne Division (GAD 98), Ivanovo. Two airborne regiments.<sup>28</sup>
  - 106<sup>th</sup> Guards Airborne Division (GAD 106), Tula. Two airborne regiments.<sup>29</sup>
- Air-assault divisions
  - 7<sup>th</sup> Guards Air Assault Division (GAAD 7), Novorossiysk. Two air-assault regiments<sup>30</sup> and possibly also a third air-assault regiment, the 97<sup>th</sup>, which was disbanded in 1997.<sup>31</sup> In 2015, this regiment was said to be resurrected; and in December 2017, a battalion, the 171<sup>st</sup> Air Assault Battalion, forming the nucleus of the regiment, was organized and located to Feodosia, in Crimea.<sup>32</sup> This is also the first unit in the history of the VDV to be garrisoned in Crimea, something first considered in 2015.<sup>33</sup> Information about when the 97<sup>th</sup> Air Assault Regiment actually would be organized has varied over time. *Dzhanskoyskie Novosti*

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<sup>26</sup> Oleg Groznyi, “Istoriei gordimsya v budushche smotrim uverno,” *Krasnaya Zvezda*, July 31, 2020, <http://redstar.ru/istoriej-gordimsya-v-budushhee-smotrim-uverenno-3/?attempt=1>.

<sup>27</sup> “Vozdushno-Desantnye Voyska,” *Ministry of Defense of the Russian Federation*; “VDV ostayutsya rezervom Glavkoverkha,” *Nezavisimaya Gazeta*, February 29, 2012, [http://www.ng.ru/ideas/2012-02-29/10\\_vdv.html](http://www.ng.ru/ideas/2012-02-29/10_vdv.html); “VDV RF,” *Milkavkaz.com*, June 6, 2017, <http://milkavkaz.com/index.php/voorujonnie-cili-racii/vdv>.

<sup>28</sup> *Milkavkaz.com*, <http://milkavkaz.com/index.php/voorujonnie-cili-racii/vdv>.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> “V Krimy posle 2020 goda razvernuto desantno-shturmovoy polk VDV,” *MIL.PRESS VOENNOE*, February 18, 2016, <https://военное.рф/2016/%D0%9A%D1%80%D1%8B%D0%BC1/>.

<sup>32</sup> Ibid, “Desantniki vysaditsa v Krimy. Chislennost VDV rezko vozrastaet – primerno s 45 tys. do pocht 60 tys. Chelovek,” *FLOT – XXI VEK*, August 15, 2015, [http://blackseafleet-21.com/news/16-08-2015\\_desantniki-vysadjatsja-v-krymu-chislennost-vdv-rezko-vozzrastet-primerno-s-45-tys-do-pocht](http://blackseafleet-21.com/news/16-08-2015_desantniki-vysadjatsja-v-krymu-chislennost-vdv-rezko-vozzrastet-primerno-s-45-tys-do-pocht), “V Feodosii sformirovan 171-y otdelnyj desantno-shturmovoy batalon,” *Live-Journal*, December 4, 2017, <https://bmpd.livejournal.com/2985671.html>.

<sup>33</sup> “Vladimir Shamanovo planakh razvitya Vozdushnodesantnykh voysk,” *Oruzhie rossii*, July 31, 2015, <http://www.arms-expo.ru/news/vooruzhennye-sily/vladimir-shamanov-o-planakh-razvitiya-vozdushno-desantnykh-voysk/>.

claimed, in 2016, that the 97<sup>th</sup> regiment was to be fully organized by 2018.<sup>34</sup> The same year, *Mil.Press* suggested the deadline might be 2019; a year later, official announcements stated that the 171<sup>st</sup> Air-Assault Battalion would be upgraded to a full regiment in 2019.<sup>35</sup> The latter contradicted what the commander of the VDV stated in December 2019, about the formation of the new regiment beginning in 2020.<sup>36</sup> However, a short article on the homepage of the Russian Ministry of Defense, from June 8, 2020, indicates that the regiment already might be operational.

- 76<sup>th</sup> Guards Air Assault Division (GAAD 76), Pskov. Three air-assault regiments.<sup>37</sup>
- Air-assault brigades
  - 11<sup>th</sup> Guards Air-Assault Brigade (GAABde 11), Ulan Ude (transferred from the Ground Forces in 2013). One airborne battalion, two air assault battalions.<sup>38</sup>
  - 31<sup>st</sup> Guards Air-Assault Brigade (GAABde 31), Ulyanovsk. One airborne battalion, two air-assault battalions.<sup>39</sup>
  - 56<sup>th</sup> Guards Air-Assault Brigade (GAABde 56), Kamysin (transferred from the Ground Forces in 2013). One airborne battalion, two or three air-assault battalions.<sup>40</sup>
  - 83<sup>rd</sup> Guards Air-Assault Brigade (GAABde 83), Ussurisk (transferred from the Ground Forces in 2013). One airborne battalion, two air-assault battalions.<sup>41</sup>
- Other units
  - 45<sup>th</sup> Spetsnaz Brigade, Kubinka
  - 30<sup>th</sup> Communications Brigade, Medvezhi Ozera

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<sup>34</sup> “Batalon VDV v Dzhankoe budet razvernut v 2017 godu”, *Dzhankoyskie Novosti*, August 1, 2016, <https://jankoy.org.ua/batalon-vedv-v-dzhankoe-budet-razvernut-v-2017-godu/>.

<sup>35</sup> “V Krimy do kontsa 2019 goda sformiruyut desanto-sturmovoy polk,” *RIA Novosti*, May 18, 2017, <https://ria.ru/20170518/1494555530.html>.

<sup>36</sup> Originally found in: <https://ee.sputniknews.ru/columnists/20191210/18721856/Nikto-krome-nas-dlya-chego-Rossiya-formiruet-novyy-polk-VDV-v-Krymu.html>. Link no longer accessible as *Sputnik-Estonia* suspended its operations in Estonia from January 1, 2020.

<sup>37</sup> “76-aya gvardeyskaya desantno-shturmovaya diviziya,” *Wikimedia Commons*, accessed January 17, 2021, <https://ru.wikipedia.org/>.

<sup>38</sup> “Komanduyushchiy VDV Rossii proinspektiruyet desantno-shturmovuyu brigadu v Ulan-Ude,” *Novaya Buryatiya*, November 8, 2013, <https://newbur.ru/n/30153/>, <https://ru.wikipedia.org/>.

<sup>39</sup> *Milkavkaz.com*, <http://milkavkaz.com/index.php/voorujonnie-cili-racii/vdv>.

<sup>40</sup> “Komanduyushchiy VDV Rossii,” *Novaya Buryatiya*, *Milkavkaz.com*, <http://milkavkaz.com/index.php/voorujonnie-cili-racii/vdv>, <https://ru.wikipedia.org/>.

<sup>41</sup> “Komanduyushchiy VDV Rossii,” *Novaya Buryatiya*, *Milkavkaz.com*, <http://milkavkaz.com/index.php/voorujonnie-cili-racii/vdv>.

In addition to the units above, the Russian Airborne Troops also possess their own training grounds, training facilities and maintenance units, etc.

The core units in the airborne divisions are the parachute regiments; and in the air-assault divisions, the most central are the two air-assault regiments. The air-assault brigades, in their turn, comprise one parachute and two air-assault battalions.<sup>42</sup> However, when it comes to the organization of the air-assault brigades, the numbers of air-assault versus airborne battalions differ between various sources. One Ukrainian source claims that all VDV air-assault brigades have four battalions—possibly made up of two air-assault and two airborne battalions.<sup>43</sup> The possibility of four battalions also finds support in what General Lieutenant Nikolai Ignatov stated in an article in *Krasnaya Zvezda*, in 2018, about the GAABde 56 receiving another air-assault battalion before the end of the year.<sup>44</sup>

Of the airborne forces the GAD 98 and GAABde 31 are rapid-reaction units within the framework of the Moscow-led CSTO.<sup>45</sup>

The number of units in the VDV have, in recent years, been subjected to further changes, with the return of the air-assault brigades from the Ground Forces as just one example. Additionally, there have been efforts to expand the service, either by adding a third regiment to the divisions or by setting up new units or reorganizing existing ones. This has, over time, been reflected in a number of high-level official statements; though, in many cases, these remarks were mutually contradictory or included claims that belied reality. Illustratively, in June 2013, the then-head of the VDV, Colonel General Shamanov, announced that an additional—i.e., a third, “missing”—regiment would be incorporated into the service’s divisions by 2020.<sup>46</sup> Earlier, he had also suggested to the Ministry of Defense that a helicopter regiment and an unmanned aerial vehicle (UAV) company ought to be included in the VDV’s air-assault divisions, while a squadron of An-2s should be added to the airborne

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<sup>42</sup> *Milkavkaz.com*, <http://milkavkaz.com/index.php/voorujonnie-cili-racii/vdv>.

<sup>43</sup> Juriy Barash, “Vosdushno-desantnye voyska Rossii: Etap perevoorusheniya. Chast 1,” *OPK*, August 6, 2028, <http://opk.com.ua/%D0%B2%D0%BE%D0%B7%D0%B4%D1%83%D1%88%D0%BD%D0%BE-%D0%B4%D0%B5%D1%81%D0%B0%D0%BD%D1%82%D0%BD%D1%8B%D0%B5-%D0%B2%D0%BE%D0%B9%D1%81%D0%BA%D0%B0-%D1%80%D0%BE%D1%81%D1%81%D0%B8%D0%B8-%D1%8D%D1%82%D0%B0/>.

<sup>44</sup> Aleksander Tikhonov, “Krylataya gvardiya vykhodit na poligony,” *Krasnaya Zvezda*, May 28, 2018, <http://redstar.ru/krylataya-gvardiya-vykhodit-na-poligony/>.

<sup>45</sup> “VDV ostayutsya rezervom Glavkoverka,” *Nezavisimaya Gazeta*, February 29, 2012, [http://www.ng.ru/ideas/2012-02-29/10\\_vdv.html](http://www.ng.ru/ideas/2012-02-29/10_vdv.html).

<sup>46</sup> “Shamanov: Novaya desantno-shturmovaya brigada VDV poyavitsya v Voronezhe,” *Boennoe obozrenie*, October 9, 2013, <https://topwar.ru/34367-shamanov-novaya-desantno-shturmovaya-brigada-vgdv-poyavitsya-v-voronezhe.html>.

divisions to facilitate basic jump training.<sup>47</sup> The plans for a third regiment were, however, postponed in 2016—to be introduced only after 2020.<sup>48</sup> That statement was directly contradicted a number of times in ensuing years. A prime example in this context is what has been said over time about the 97<sup>th</sup> Air-Assault Regiment.

One division where the third regiment has returned is the GAAD 76, which, according to an order issued by the Ministry of Defense on January 1, 2018, received a third regiment—the 237<sup>th</sup>.<sup>49</sup>

Beginning in 2013, the reconnaissance companies in the airborne divisions and the air-assault units were reorganized into intelligence battalions and, initially, into the GAAD 98 and GAABde 31.<sup>50</sup> This process has continued, and since 2016 more new units were added: namely, tank, UAV and electronic countermeasures (ECM) companies.<sup>51</sup> The introduction of tactical-level UAV and ECM units, in particular, is assumed to be the result of Russia's experience in its war with Georgia in 2008, operations in Ukraine since 2014 and the Syrian operation. Thus, by early 2019, there were six UAV companies and two UAV platoons in the VDV.<sup>52</sup> Presently all VDV divisions and air-assault brigades are assumed to include a reconnaissance battalion, an ECM company and a UAV company/platoon. As regards aerial drones, at the end of 2019, UAV companies or platoons had been organized in all divisions and brigades.<sup>53</sup>

Yet of the aforementioned newly added units, tank companies may be the most interesting. Officials first announced in 2015 that these armored units would be organized by the end of that year.<sup>54</sup> But due

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<sup>47</sup> "Komandovanie VDV predlaget vklyuchit v soedineniya "golubyykh beretov" vozduzhnuyu sostavlayayushchuyu", *Interfax*, May 30, 20113, <https://www.interfax.ru/russia/309761>.

<sup>48</sup> "Istochnik v Genshtabe VS RF podelilsya s TASS informatsiyey o formirovanii novyykh voynskikh chastey VDV", *Desantura.ru*, February 18, 2016, <http://desantura.ru/news/78772/>.

<sup>49</sup> "Komanduyuschchi VDV prinyal uchastie v rasshirennom zasedanii Kollegii Minoborony Rossii," December 18, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12208660@egNews](https://function.mil.ru/news_page/country/more.htm?id=12208660@egNews); "237-i Torunskiy polk osstanovlen v sostave pskovskoy divizii," *Pskovskoe agenstvo informatsii*, December 8, 2018, <https://informpskov.ru/news/288153.html>, VKontakte, [https://vk.com/komdiv76?w=wall-2499828\\_30488](https://vk.com/komdiv76?w=wall-2499828_30488).

<sup>50</sup> "Shamanov novaya desantno shturmovaya brigada vdv poyavitsya v Vvoronezhe," *Boennoe obozrenie*, October 9, 2013, <https://topwar.ru/34367-shamanov-novaya-desantno-shturmovaya-brigada-vgv-poyavitsya-v-voronezhe.html>.

<sup>51</sup> "V VDV budut sformirovany novye pazvedbatalony," *RIA Novosti*, January 21, 2016, <https://ria.ru/20160121/1362763047.html#ixzz3y3ZqvCsQ>.

<sup>52</sup> Aleksandr Tikhonov, "Desant narashchivaet mobilnost i moshch," *Krasnyaya Zvezda*, February 22, 2019, <http://redstar.ru/desant-narashchivaet-mobilnost-i-moshh/>.

<sup>53</sup> "S dronom v razvedku: startuet massovoe osnashchenie armii kvadrokofterami," *Novosti VPK*, January 19, 2021.

<sup>54</sup> "VDV v 2016 godu mogut poluchit modernizirovannuyu pushky 'Sput-SD,'" *RIA Novosti* July 31, 2015, <https://ria.ru/20150731/1155960657.html#ixzz3hjEvvbtr>.

to unknown reasons, their introduction was delayed, with the process of organizing tank companies in all VDV air-assault divisions and brigades only “complete” on December 1, 2016; and indeed, some of these new units did not receive their T-72B3 tanks until early 2017.<sup>55</sup> Furthermore, the tank companies were supposed to have been upgraded to battalion strength in 2018.<sup>56</sup> However, this seems not to have been the case and was only accomplished by early 2019 in the two air-assault divisions and in one air-assault brigade—the GAABde 56.<sup>57</sup> The usual practice, whereby a newly introduced unit or capability attracts comprehensive attention, appears not to have been the case with the new air-assault tank companies. At least not initially.

The presence of tank units in the Airborne Troops is not a wholly novel development. A tank battalion was organized in the GAD 98 in 1963, but it was disbanded three years later; moreover, in 1982, during the war in Afghanistan, a similar battalion was organized in the GAD 103, equipped with 15 T-62s.<sup>58</sup> The latter battalion ended up being disbanded when the Soviet forces left Afghanistan.<sup>59</sup> Finally, a tank regiment was part of the VDV during the first war in Chechnya.<sup>60</sup> This limited experience of employing tanks within VDV ranks likely played a decisive role in the process of introducing tank companies to the service starting in 2015.

Yet combat units are not the only formations to have been newly organized or upgraded within the VDV. For example, the 150<sup>th</sup> Maintenance Battalion, disbanded in 2010, was organized anew seven years later.<sup>61</sup>

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<sup>55</sup> “Otdelnye tankovye roti v Vozdushno-desantnykh voyskakh,” *Live-Journal*, March 21, 2017, <https://bmpd.livejournal.com/2502359.html>, <https://anna-news.info/v-vdv-poyavilis-tankovye-batalony/>.

<sup>56</sup> “Istochnik: tankovye rotы VDV s ‘batalonnymi’ T-72B3 nachnut sozdat do kontsa goda,” *TASS*, May 11, 2016, <https://tass.ru/armiya-i-opk/3271754>.

<sup>57</sup> “VDV RF v 2018 godu sformiruyut tri tankovykh batalona v dvukh diviziyakh i odnoy brigade,” *TASS*, July 31, 2017, <https://tass.ru/armiya-i-opk/4451671>; “V VDV poyavilis tankovyye batalony,” *ANNA-NEWS.info*, April 17, 2019, <https://anna-news.info/v-vdv-poyavilis-tankovye-batalony/>; “Komanduyushchiy VDV rasskazal o vypolnenii postavlennykh v 2018 godu zadach,” *Rambler*, December 18, 2018, <https://news.rambler.ru/army/41449188-komanduyuschiy-vdv-rasskazal-o-vypolnenii-zadach/>.

<sup>58</sup> “Desantnikov usilyat tankami,” *Izvestia*, March 22, 2018; Dmitry Salov, “V VDV poyavilis tankovye batalony,” *ANNA-NEWS.info*, April 17, 2019, <https://iz.ru/719090/aleksandr-kruglov-bogdan-stepovoi/desantnikov-usiliat-tankami>.

<sup>59</sup> “Desantnikov,” *Izvestia*.

<sup>60</sup> *Ibid.*

<sup>61</sup> Aleksandr Pincuk, “Pered krylatoy gvardiey otkryvayutsya hovyе gorizonty,” *Krasnyа Zvezda*, August 1, 2018, <http://redstar.ru/pered-krylatoj-gvardiej-otkryvayutsya-novyе-gorizonty/?attempt=1>.

In addition to the unit-level reorganization detailed above, Russia has also, in the last few years, carried out an experiment regarding a new organizational structure in the VDV air-assault units. These efforts surfaced in connection with the strategic-operational exercise Vostok 2018 in September of that year but began already in 2017.<sup>62</sup> Moreover, according to Defense Minister Sergei Shoigu, additional such testing was carried out all through June to November of 2018.<sup>63</sup> The testing of the new organization continued during the exercises Tsentr 2019 and Kavkaz 2020.<sup>64</sup> The origin of these experiments can be traced to a suggestion made in 2012 by the then-commander of the VDV, Vladimir Shamanov, to add a helicopter regiment to the GAABde 31.<sup>65</sup> His suggestion likely intended to remedy a serious shortcoming (alluded to above), when, as a result of the reforms begun in 2008, army aviation (i.e., helicopters) was transferred to the Air Force and subordinated to the commanders of the military districts and not to the VDV.<sup>66</sup> Such an arrangement hampers the planning and execution of air-landing operations. However, this problem promises to be remedied as soon as the VDV obtains its own army-aviation brigade. The planned brigade will consist of four helicopter squadrons (with a total of 48–50 helicopters), one of which will be equipped with the multirole Mi-35M (Hind E). Three places were mentioned in 2019 as possible base locations for the brigade: Voronezh, Ryazan or Orenburg. According to announced plans, the brigade is to be organized during 2020–2021, but it remains to be seen if it will be an independent brigade or part of the upgraded GAABde 31.<sup>67</sup> In December 2020, Deputy Defense Minister Aleksei Krivoruchko stated that eight Mi-8AMTSh-VN Sapsans (“Peregrine”) will be delivered to the Armed Forces, including to the VDV’s helicopter brigade.<sup>68</sup> A statement indicating that the brigade is being formed.

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<sup>62</sup> Pavel Ivanov, “‘Krylataya pekhota’ stanovitsa mobilnee,” *Voенно-Promyshlennyy Kurer*, February 19, 2019, <https://vpk-news.ru/articles/48469>.

<sup>63</sup> Aleksandr Peshkov, “Soedineniya VDV novovo tipa zadeystvovuyut v manevrakh ‘Vostok-2018,’” *TV Zvezda*, September 11, 2018, <https://tvzvezda.ru/news/forces/content/201809111143-od75.htm>; Leonid Khayremdivinov, “Rossiskaya armiya aktivno razivaet svoi mobilnye sostavlyayushchie,” *Krasnaya Zvezda*, November 30, 2018, <http://redstar.ru/rossijskaya-armiya-aktivno-razivaet-svoi-mobilnye-sostavlyayushhie/?attempt=1>.

<sup>64</sup> Anton Lavrov, “Viklyuchili aeromobilnik: chasti VDV usilili vertolatami,” *Aviaport*, October 19, 2020, <https://www.aviaport.ru/digest/2020/10/19/656153.html>.

<sup>65</sup> “Shamanov predlaget vklyuchit armeyskuyu aviatsiyu v soctav brigada VDV,” *RIA Novosti*, December 18, 2012, <https://ria.ru/20121218/915287790.html>.

<sup>66</sup> “VDV okrylyayut: desantniki poluchat sobstvennuyu aviatsiyu,” *Izvestia*, February 19, 2019, <https://iz.ru/847090/aleksei-ramm-aleksei-kozachenko-bogdan-stepovoi-konstantin-valentinov/vdv-okryliaiut-desantniki-poluchat-sobstvennuiu-aviatciu>.

<sup>67</sup> “VDV okrylyayut,” *Izvestia*; “Brigada armeyskoy aviatsii stanet chastyu VDV,” *Podmoskov’ye Segodnya*, February 19, 2019, <https://mosregtoday.ru/sec/brigada-armejskoj-aviacii-stanet-chastyu-vedv/>.

<sup>68</sup> “Pervye desyat vertolotov Mi-8AMTSh postupyat v voyska v 2012 godu,” *RIA Novosti*, December 17, 2020, <https://ria.ru/20201217/vertolety-1589640501.html>.

The unit most notably involved in the VDV's organizational restructuring experiments has been the GAABde 31, a former airborne division (the 104<sup>th</sup>) that, in 1998, was “downsized” to an air-assault brigade. During Vostok 2018, transport- and attack-helicopter squadrons were subordinated to the brigade, and two airmobile battalions were organized within this brigade.<sup>69</sup> According to *Izvestia*, as a result of the following year's Tsentr 2019 exercise, it was decided to reorganize the GAABde 31 into an airmobile brigade.<sup>70</sup> The brigade is intended to be upgraded to division strength, something mentioned already in 2015, and then as an ordinary air-assault division with three air assault regiments.<sup>71</sup> This seems to have changed as a result of the experiments, and the upgraded GAABde 31 will possibly be named the 104<sup>th</sup> Airmobile Division and appear in 2023, comprising one air-assault brigade and one army-aviation brigade. This would be an odd organization choice if the VDV is to have just one army-aviation brigade. A separate brigade that can support any of the VDV's air-assault units might be a better option. Nevertheless, evident plans to create an additional division also resonates with what the commander of the VDV wrote in a February 2019 article in *Krasnaya Zvezda* regarding how the VDV would look in 2025: five divisions, four air-assault brigades and an artillery brigade.<sup>72</sup> The same units were, with a couple of exceptions, also mentioned during one lecture, “The Role of the VDV in Future Armed Conflicts,” delivered during the October 2020 Ogarkov Readings, organized by the Center for Analysis of Strategies and Technologies (CAST).<sup>73</sup> Accordingly, the upgrading of the GAABde 31 to division strength implies that, in 2025, there will only be three air-assault brigades in the VDV, and the artillery brigade will appear “in perspective”—i.e. beyond 2025. In any case, an artillery brigade in the airborne forces is a novelty, and it remains to be seen when it will appear as well as how it will be organized and equipped.

In addition to organizational changes in existing units, there have also been frequent claims made about setting up new units within the Airborne Troops. In 2013, Russian media outlets reported on the creation of an additional VDV air-assault brigade—the 345<sup>th</sup>—to be organized in Voronezh in

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<sup>69</sup> Pavel Ivanov, “‘Krylataya pekhota’ stanovitsa mobilnee,” *Voенно-Promyshlennyi Kurer*, February 19, 2019, <https://vpk-news.ru/articles/48469>.

<sup>70</sup> Roman Kretsul, Aleksey Ramm, Aleksey Kozachenko, Andrey Fedorov, Pavel Ivanov, “Priletit vdrug desantnik: na ucheniyakh ‘Tsentr’ oprobuyut VDV nvovo tipa,” *Izvestia*, September 19, 2019, <https://iz.ru/922566/roman-kretcul-aleksei-ramm-aleksei-kozachenko/priletit-vdrug-desantnik-na-ucheniakh-tcentr-oprobuiut-vdv-novogo-tipa>.

<sup>71</sup> “Istchnik v Genshtabe: Ulyanovskuyu brigadu VDV preobrzut v diviziyu,” *TASS*, June 4, 2015, <https://tass.ru/armiya-i-opk/2018476>.

<sup>72</sup> Aleksandr Tikhonov, “Desant narashchivaet mobilnost i moshch,” *Krasnaya Zvezda*, February 22, 2019, <http://redstar.ru/desant-narashhivaet-mobilnost-i-moshh/>.

<sup>73</sup> “Rol VDV v vooruzhenykh konfliktakh budushchevo,” *Live Journal*, November 2, 2020, <https://bmpd.livejournal.com/4178025.html>.

2016. That date later had to be postponed to 2017–2019, for economic reasons.<sup>74</sup> The announced brigade would bear the traditions of the 345<sup>th</sup> Airborne Regiment, dissolved in 1998 and once one of the regiments in the 104<sup>th</sup> Airborne Division, which was downsized in 1998 to a brigade—i.e., the GAABde 31. Presently, it seems less likely that a new air-assault brigade will appear in the VDV, for at least two reasons. First, what the commander of the VDV mentioned about the future of the service does not herald an increase in the number of air-assault brigades. Second, if the upgrading of the GAABde 31 results in an air-assault division, one of its organic regiments will most certainly bear the designation 345<sup>th</sup>.

As regards organization, possible to conclude that, in 2019, the VDV obtained its own so-called scientific company.<sup>75</sup> The small unit, with a strength of around 80 conscripts, is located within the GAD 106 and is one of 17 such scientific companies in the Russian Armed Forces.<sup>76</sup> The idea behind these formations is twofold: first, to use conscripts with higher education to carry out research for the benefit of the Armed Forces, and second, to coax the conscripts to a future career in the military or the arms industry. The conscripts serving in the VDV's scientific company undergo military training just one day a week. The rest of the week, they carry out research at the KBP Instrument Design Bureau, one of the leading design firms in the Russian defense industry, or at NPO Splay, one of the foremost developers and manufacturers of multiple-launch rocket systems.<sup>77</sup>

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<sup>74</sup> “Minooborony prevedvidnulo sroki sozdaniya novoy brigady VDV v Voronezhe,” June 4, 2015, <https://regnum.ru/news/1930636.html>; “V Voronezhe k 2017–2018 godam dolzhny zanovo sformirovat 345-yu desantno-shturmovuyu brigadu,” August 1, 2016, <https://moe-online.ru/news/society/346826>.

<sup>75</sup> “V Vozdushno-desantnykh voyskakh poyavilas polnotsennaya nauchnaya rota,” December 19, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12208807@egNews](https://function.mil.ru/news_page/country/more.htm?id=12208807@egNews).

<sup>76</sup> “Bolee 450 priziynnikov goda otrpravilis so sbornykh punktov subyektov RF v naykhnye i naukhnyeproduktivnyye roti VS RF,” July 6, 2020, [https://recrut.mil.ru/for\\_recruits/research\\_company/news/more.htm?id=12300536@egNews](https://recrut.mil.ru/for_recruits/research_company/news/more.htm?id=12300536@egNews).

<sup>77</sup> “V Vozdushno-desantnykh voyskakh poyavilas polnotsennaya nauchnaya rota,” December 19, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12208807@egNews](https://function.mil.ru/news_page/country/more.htm?id=12208807@egNews).

# Equipment

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During the last several years, the Russian defense ministry stepped up the allocation of modernized and/or new equipment to the VDV. During the period 2012–2017, the volume of modern equipment increased three and a half times, and by the end of 2018, 63 percent of the equipment was categorized as “modern.”<sup>78</sup> The latter figure increased to 67.9 percent by the end of 2019 and was set to reach 72 percent in 2020.<sup>79</sup> These percentages have varied over time and from spokesperson to spokesperson; thus, in 2018, even 75 percent was mentioned as the goal for 2020.<sup>80</sup> Ultimately, neither stated objective was quite reached that year, with modern equipment making up 71.6 percent, according to the Ministry of Defense in December 2020.<sup>81</sup>

Despite the figures above, the majority of the VDV’s 2,293 combat vehicles in service in 2018 were still the older, 1980s-era BMD-1s and BMD-2s; and of its fleet of 850 BTR-Ds, fewer than 100 were BTR-MDM Rakushkas, the most modern version.<sup>82</sup> Presently, the VDV is receiving the most modern vehicles—BMD-4Ms and BTR-MDMs—but these are unlikely to completely replace all of the older

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<sup>78</sup> “Modernizatsiya vosdushno-desantnykh voysk: novye namerenya,” *Voennoe Obozrenie*, March 19, 2018, <https://topwar.ru/137985-modernizaciya-vozdushno-desantnyh-voysk-rezultaty-i-plany.html>; “Komanduyushchiy VDV rasskazal o vypolnenii postavlennykh v 2018 godu zadach,” *Rambler*, December 18, 2018, <https://news.rambler.ru/army/41449188-komanduyushchiy-vdv-rasskazal-o-vypolnenii-zadach/>. The meaning of the expression “modern equipment” has never been given a satisfactory Russian explanation. For the purposes of this study, “modern equipment” is interpreted as a piece of equipment equal to or more capable than the corresponding Western piece of equipment.

<sup>79</sup> Aleksandr Tikhonov, “Desant narashchivaet mobilnost i moshch,” *Krasnyaya Zvezda*, February 22, 2019, <http://redstar.ru/desant-narashchivaet-mobilnost-i-moshch/>; “Modernizatsiya vosdushno-desantnykh voysk: novye namerenya,” *Voennoe Obozrenie*, March 19, 2018, <https://topwar.ru/137985-modernizaciya-vozdushno-desantnyh-voysk-rezultaty-i-plany.html>; “V Moskve pod rukovodstvom glavy voennovo vedomstva proshlo zasedanie Kollegii Minoborony Rossii,” *Ministry of Defense of the Russian Federation*, April 29, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12289505@egNews](https://function.mil.ru/news_page/country/more.htm?id=12289505@egNews).

<sup>80</sup> “Modernizatsiya vosdushno-desantnykh voysk: novye namerenya,” *Voennoe Obozrenie*, March 19, 2018, <https://topwar.ru/137985-modernizaciya-vozdushno-desantnyh-voysk-rezultaty-i-plany.html>.

<sup>81</sup> “Ezhegodny sbornik Armiya v tsifrakh 2020,” *Ministry of Defense of the Russian Federation*, December 10, 2020, [http://mil.ru/files/morf/2020-12-10\\_army\\_in\\_numbers\\_2020.pdf](http://mil.ru/files/morf/2020-12-10_army_in_numbers_2020.pdf).

<sup>82</sup> Juriy Barash, “Vosdushno-desantnye voyska Rossii: Etap perevooruzheniya. Chast 2,” *OPK*, August 15, 2018, <http://opk.com.ua/%D0%B2%D0%BE%D0%B7%D0%B4%D1%83%D1%88%D0%BD%D0%BE-%D0%B4%D0%B5%D1%81%D0%B0%D0%BD%D1%82%D0%BD%D1%8B%D0%B5-%D0%B2%D0%BE%D0%B9%D1%81%D0%BA%D0%B0-%D1%80%D0%BE%D1%81%D1%81%D0%B8%D0%B8-%D1%8D%D1%82%D0%B0-2/>

vehicles still in service. Indeed, it is less expensive to modernize older vehicles than to produce entirely new ones. Therefore, the VDV will, starting in 2021, receive 600 modernized BMD-2s (classified as BMD-2Ms); and among those, an unknown number will be BMD-2K-AU command vehicles.<sup>83</sup> This means that, at a minimum, about 60 percent of the BMD-2s will be modernized.<sup>84</sup>

In comparison with its predecessor, the BMD-2M boasts increased firepower thanks to the Bereg weapons station, which includes a 30-millimeter gun, two 7.62-centimeter machine guns and anti-tank missiles. It will also have better communications and superior fire control systems.<sup>85</sup> This process of upgrading the older BMD-2s is not a new development. As early as 2014, officials declared that, by 2017, the VDV would receive about 200 modernized BMD-2s.<sup>86</sup> Whether these vehicles were to be equipped with the Bereg is unclear but seems less likely considering that tests with Bereg-equipped BMD-2Ms were still ongoing in 2019.<sup>87</sup>

The Airborne Troops initially had no plans to procure the BMD-4M combat vehicle—an improved version of the BMD-4, which, in turn, was an improved version of the BMD-3—because the vehicle lacked protection, foremost against mines.<sup>88</sup> However, that changed with the appointment of a new minister of defense, Sergei Shoigu, in 2012. At that point, the vehicle underwent new testing; and in 2014, the Ministry of Defense concluded a three-year contract with the company Traktorny Zavody concerning the delivery of more than 250 BMD-4Ms to the VDV.<sup>89</sup> A later contract foresaw the

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<sup>83</sup> “Planiruetsya modernizatsiya okolo 600 boevykh mashin desanta BMD-2,” December 13, 2018, *Live Journal*, <https://bmpd.livejournal.com/3453051.html>; “BMD-2 obretayot vturuyo molodost,” *Armeysky Vestnik*, December 21, 2018, <https://army-news.org/2018/12/bmd-2-obretyot-vtoruyu-molodost/>.

<sup>84</sup> “SPTP2S25M ‘Sprut-SDM1’: Plany Minoborony i ozhidaemye rezultaty,” *Boennoe Obozrenie*, December 10, 2020, <https://topwar.ru/177967-sptp-2s25m-sprut-sdm1-plany-minoborony-i-ozhidaemye-rezultaty.html>.

<sup>85</sup> “BMD-2 obretayot vturuyo molodost,” *Armeysky Vestnik*, December 21, 2018, <https://army-news.org/2018/12/bmd-2-obretyot-vtoruyu-molodost/>.

<sup>86</sup> “V Podmoskove pokazali modernizirovanny variant boyevoy mashiny desanta BMD-2,” *Maxpark*, April 12, 2014, <http://maxpark.com/community/5100/content/2664017>; “Modernizirovannaya boevaya mashina desanta BMD-2,” <http://bastion-opk.ru/bmd-2m/>.

<sup>87</sup> “Modernizirovannyye BMD-2M prokhodyat gosispitaniya s novym boevym module,” *MIL.PRESS VOENNOE*, July 31, 2019, <https://военное.рф/2019/%D0%98%D1%81%D0%BF%D1%8B%D1%82%D0%B0%D0%BD%D0%B8%D1%8F41/>.

<sup>88</sup> “BMD-4 boevaya mashina desanta,” [http://www.arms-expo.ru/armament/samples/1284/66144/?sphrase\\_id=15281079](http://www.arms-expo.ru/armament/samples/1284/66144/?sphrase_id=15281079); “BMD-4M,” <https://soldats.club/boevye-mashiny/348-bmd-4m>.

<sup>89</sup> “Minoborony Rossii poluchit svyshe 250 BMD-4M i BTR ‘Rakushka,’” *Orushie Rossii*, May 15, 2015, [http://www.arms-expo.ru/news/vooruzhenie\\_i\\_voennaya\\_tekhnika/minoborony\\_rossii\\_poluchit\\_svyshe\\_250\\_bmd\\_4m\\_i\\_btr\\_rakushka/](http://www.arms-expo.ru/news/vooruzhenie_i_voennaya_tekhnika/minoborony_rossii_poluchit_svyshe_250_bmd_4m_i_btr_rakushka/).

delivery of about 132 BMD-4Ms and 55 BTR-MDMs between 2018 and 2020.<sup>90</sup> The commander of the VDV also stated, in 2014, that the Airborne Troops would receive 1,500 BMD-4Ms and 2,500 BTR-MDMs (i.e., a complete replacement of the combat vehicle inventory) by 2025.<sup>91</sup> Yet those stated plans look far less likely to come to fruition considering the recent choice to procure BMD-2Ms as a halfway measure.

Until mid-2020, 320 BMD-4Ms and 180 BTR-MDMs have been produced. And so far, 9 battalion sets have been delivered to the VDV, each set comprising 31 BMD-4Ms and 8 BTR-MDMs.<sup>92</sup> The latest delivery took place on November 25, 2020, when the GAAD 7 received a battalion set.<sup>93</sup> This was the division's first delivery of these vehicles. Another battalion set was apparently supposed to be delivered to the VDV in mid-December 2020, but for unknown reasons that acquisition never materialized.<sup>94</sup> Until the end of 2020, deliveries of battalion sets were made to the following units:<sup>95</sup>

- September 2016: GAD 106
- December 2016: GAD 106
- April 2017: GAABde 31
- August 2017: GAABde 31
- February 2018: GAAD 76
- March 2019: GAAD 76
- January 2020: GAAD 76
- June 2020: GAAD 76

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<sup>90</sup> "Ispolnenie kontrakta na postaku voennym BMD-4M perenesli na 2019 god iz-za sanktsy," TASS, December 20, 2018, <https://tass.ru/ural-news/5935296>.

<sup>91</sup> "Vozdushno-desantnye voyska (VDV), *Novosti*, 2014, <http://bastion-karpenko.ru/vdv-2014/>.

<sup>92</sup> "234-y desantno-shturmovoy polk Pskovskoy divizii VDV poluchil vtoroy batalonny komplet BMD-4M," *Live Journal*, June 20, 2020, <https://bmpd.livejournal.com/4065141.html#cutid1>.

<sup>93</sup> "Na voruzhennie Novorossiskovo desantno-shtumovovo soedinennya VDV postupil batalyonny komplet noveyshey boevoy tekhniki BMD-4M i BTR MDM 'Rakushka,'" *Ministry of Defense of the Russian Federation*, November 25, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12326605@egNews](https://function.mil.ru/news_page/country/more.htm?id=12326605@egNews).

<sup>94</sup> "Ofitsialnoe postuplenye BMD-4M v 108-m gvardeyskom desantno-shturmom polku," *Live Journal*, November 20, 2020, <https://bmpd.livejournal.com/4198650.html>.

<sup>95</sup> "Boevaya mashina desanta BMD-4 (Obekt 96), <http://bastion-karpenko.ru/bmd-4m/>," "BMD-4M na sluzhbe Vozdushno-Desantnykh Voysk," *Sdelano y nas*, January 24, 2020, <https://sdelanounas.ru/blogs/129772/>; "Ofitsialnoe postuplenye BMD-4M v 108-m gvardeyskom desantno-shturmom polku," *Live Journal*, November 20, 2020, <https://bmpd.livejournal.com/4198650.html>; "Sedmoy batalyonny komplet noveyshey boevoy tekhniki postupil na vooruzheie gvardeyskovo soedineniya VDV v Pskove," *Ministry of Defense of the Russian Federation*, January 17, 2020", [https://function.mil.ru/news\\_page/country/more.htm?id=12271267@egNews](https://function.mil.ru/news_page/country/more.htm?id=12271267@egNews); "BMD-4M v 137-m gvardeyskoy parashutno-desantnom polku v Ryazan," *Live Journal*, January 22, 2017, <https://bmpd.livejournal.com/2388466.html>.

- November 2020: GAAD 7

Taken together, this means that 9 out of the VDV's 43 battalions are presently equipped with BMD-4Ms and BTR-MDMs.<sup>96</sup>

The deliveries are, with one exception, assumed to have been accomplished according to plan—that is, two sets a year. In October 2018, the commander of the VDV, Colonel General Andrei Serdiukov, stated that two additional battalion sets would be delivered before the end of the year.<sup>97</sup> Yet those sets never materialized, as a result of Western sanctions on the defense contractor Kurganmashzavod, which produces the BMD-4M. The planned delivery of the two additional battalion sets were, therefore, postponed until 2019, when Russian substitutes for the sanctioned Western components in question became available.<sup>98</sup> However, just one set was delivered in 2019, suggesting that the problems still remained that year.

The BMD-4M amphibious infantry fighting vehicle weighs about 14 tons, compared to 8.2 tons for the BMD-2—which strains the carrying capacity limit for the Il-76 transport aircraft. Although the plane can carry up to three BMD-4Ms, the tracked combat vehicle's size means that its crew and the paratroopers have to be seated in and dropped together with the vehicle rather than separately.<sup>99</sup> The BMD-4M is reportedly designed to be airdropped with personnel on board, but this has never been publicly observed to date—unlike when it comes to the BTR-MDM.

The BMD-4M seems never to have been dropped in a tactical context until an exercise held in July 2020, when three of these tracked vehicles were dropped at the same time from an Il-76. Prior to that demonstration, VDV personnel had not been allowed to carry out preparations and the actual dropping of the vehicle on their own,<sup>100</sup> apparently due to certain complications or limitations involving the PBS-950U/Bakhchia-U-PDS and PBS-955 parachute systems used in connection with the BMD-4M. Those systems started to be delivered in 2019 and are being tested in connection with

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<sup>96</sup> “BMD-4M na sluzhbe Vozdushno-Desantnykh Voysk,” <https://sdelanounas.ru/blogs/129772/>; “BMD-4M: debyaty batalon! Itogi 2020 goda,” <https://sdelanounas.ru/blogs/137799/>.

<sup>97</sup> “VDV poluchat eshche dva batalonnykh komplekta BMD-4M do kontsa goda,” *RIA Novosti*, October 19, 2018, <https://ria.ru/20181019/1531048299.html>.

<sup>98</sup> “Ispolnenie kontrakta na postaku voennym BMD-4M perenesli na 2019 god iz-za sanktsy,” *TASS*, December 20, 2018, <https://tass.ru/ural-news/5935296>.

<sup>99</sup> “BMD-2 obretayot vtoruyu molodost,” *Voennoe Obozrenie*, December 21, 2018, <https://topwar.ru/151570-bmd-2-obretet-vtoruju-molodost.html>.

<sup>100</sup> “Takikh zadach eshch nikto ne reshali,” *Krasnaya Zvezda*, July 24, 2020, <http://redstar.ru/takih-zadach-eshhyo-nikto-ne-reshal/?attempt=1>.

the delivery.<sup>101</sup> Thus, until the exercise in July 2020, VDV personnel had to accomplish all preparations under the supervision of those responsible for the testing of those parachute systems. It appears that those tests were concluded in July, and the ensuing VDV exercise seems to have been part of the preparations for Kavkaz 2020. As part of the Kavkaz strategic-operational exercise that September, a parachute company, including ten BMD-4s, was dropped from five Il-76MDs. Notably, the vehicles were prepared for dropping by their own crews, who parachuted to the ground after the combat vehicles had been felled.<sup>102</sup>

In its basic version, the BTR-MDM is a simple transport vehicle built on the chassis of a BMD-4M. It features a crew of 2 though can seat up to 13 paratroopers.<sup>103</sup> In July 2018, the VDV took part in an exercise that involved airdropping the BTR-MDM with a crew onboard from a height of 1,800 meters. At the time, officials claimed this was the first demonstration of its type—a rather improbable assertion considering that this event took place in front of a large crowd of spectators and the media.<sup>104</sup> Considering the high risk of something going wrong, it seems highly unlikely that the authorities would have attempted such a complicated training exercise publicly without having successfully tried it at least once before. In any case, the airdrop had been expected: as early as April 2018, the tabloid *Izvestia* reported that a BMD-4M with crew on board would be dropped from an airplane during an exercise “in August.”<sup>105</sup> That cited date was later corrected by the TV channel *Zvezda*, which mentioned that during the mid-July 2020, exercise both a BMD-4M and a BTR-MDM would be dropped with personnel onboard.<sup>106</sup> The fact that a BTR-MDM was dropped publicly instead of a BMD-4M suggests that military officials felt the time was not yet ripe for such a demonstration involving the advanced infantry fighting vehicle—at least not in front of spectators and the media.

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<sup>101</sup> “V Vozdushno-desantnye voyska postupili novye seriynye sredstva desantirovannaaya boyevoy tekhniki,” *Ministry of Defense of the Russian Federation*, January 3, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12269404@egNews](https://function.mil.ru/news_page/country/more.htm?id=12269404@egNews); “Takikh zadach eshch nikto ne reshali,” *Krasnaya Zvezda*, July 24, 2020, <http://redstar.ru/takih-zadach-eshhikto-ne-reshal/?attempt=1>.

<sup>102</sup> “V ramkakh SKShU ‘Kavkaz-2020’ VDV v pervye porvedut vybrosku iz samoletov VTA srazu desyati BMD-4M podgotovlennykh k desantirovaniyu shtanymi ekipazhami,” *Ministry of Defense of the Russian Federation*, September 24, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12315923@egNews](https://function.mil.ru/news_page/country/more.htm?id=12315923@egNews).

<sup>103</sup> “Bronetransporter BTR-MD ‘Rakuska,’ ” *MILITARYARMS.RU*, November 28, 2019, [https://militaryarms.ru/voennaya-tekhnika/boevye-mashiny/btr-md-rakushka/#h2\\_2](https://militaryarms.ru/voennaya-tekhnika/boevye-mashiny/btr-md-rakushka/#h2_2).

<sup>104</sup> “Ucheniya pod Ryazanyu: spusk BTR s ekipazhem i desantirovanie,” *Novosti VPK*, July 16, 2018, [https://vpk.name/news/221325\\_ucheniya\\_pod\\_ryazanyu\\_spusk\\_btr\\_s\\_ekipazhem\\_i\\_desantirovanie\\_voennyih.html](https://vpk.name/news/221325_ucheniya_pod_ryazanyu_spusk_btr_s_ekipazhem_i_desantirovanie_voennyih.html), <https://ok.ru/video/1162893267243>.

<sup>105</sup> “Noveyshie boevye y dlya desantnikov budut prizemlyatsya s ekipazhem vntri,” *Izvestia*, March 6, 2018, <https://iz.ru/716648/2018-03-06/noveishie-boevye-mashiny-dlia-desantnikov-budut-prizemliatsya-s-ekipazhem-vntri>.

<sup>106</sup> “Na ucheniyakh VDV v pervye proidet desantirovanie lichnovo sostava vntri BMD-4M i BTR-MDM,” *TV Zvezda*, July 10, 2018, <https://tvzvezda.ru/news/forces/content/201807101202-sz0j.htm>.

Even though uncertainty continues to exist regarding whether or not either aforementioned vehicle has ever truly been tested in parachute jumps with onboard crews, the dropping of armored combat carriers with personnel inside is not a new capability for the Russian airborne forces. The first ever such recorded demonstration took place on January 5, 1973, and has been exercised again on a number of later occasions.<sup>107</sup> But such manned vehicle airdrop exercises are certainly not a daily occurrence, having been undertaken only on special occasions, after a decision from the top commander of the VDV.<sup>108</sup> This may thus explain why one source has claimed that only 60 persons in total have ever accomplished this feat.<sup>109</sup>

Both the BMD-4M and the BTR-MDM are built as part of a broader family of combat and support vehicles. It is safe to assume that additional vehicles built off of the designs will also be developed in the near future—such as, for example, a command vehicle based on the BTR-MDM model. At present, this vehicle family includes, in particular:

- The BMD-4M, from which the following variants have been developed:
  - The tank destroyer, or rather a light amphibious tank 2S25M Sprut-SDM1, an upgraded version of the Sprut-SD, with a new engine as well as enhanced armor and fire control. This vehicle has undergone trials in 2019, and was said to be introduced in the VDV in 2020.<sup>110</sup> However, the trials have continued during 2020 and are not expected to be concluded until 2022 at the earliest.<sup>111</sup>
  - The Ptitselov, an anti-aircraft missile system that will appear in the VDV from 2022, equipped with 12 9M340 Sosna-R surface-to-air missiles.<sup>112</sup> Reportedly, the missile has been

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<sup>107</sup> “Nikto krome nikh: kak v possiyskikhVDV nauchilis desantirovat boevuyo tekhniku s ekipzhami vnutri,” *TV Zvezda*, August 5, 2018, <https://tvzvezda.ru/news/forces/content/201808050802-9oye.htm>; “Tolko rossiskie ‘golubye berety’ mogut desantirovat vnutri boevykh mashin,” *Interfax*, January 5, 2013, <https://www.interfax.ru/russia/283956>.

<sup>108</sup> “Nikto krome nikh: kak v possiyskikhVDV nauchilis desantirovat boevuyo tekhniku s ekipzhami vnutri,” *TV Zvezda*, August 5, 2018, <https://tvzvezda.ru/news/forces/content/201808050802-9oye.htm>.

<sup>109</sup> *Ibid.*

<sup>110</sup> “Gosispytanya noveyshey pushki ‘SPRUT-SDM1’ nachinutsya v sleduyushchem gody,” *TV Zvezda*, December 4, 2018, <https://tvzvezda.ru/news/opk/content/201812040905-sx7s.htm>; “Nazvany sroki postuplenya v VDV noveyshey pushki ‘Sprut-SDM1,’ ” *TV Zvezda*, October 19, 2018, <https://tvzvezda.ru/news/opk/content/201810191559-ezkb.htm>.

<sup>111</sup> “Plavayushchy tank ‘Sprut.SDM1’ Vyshel na gosispytanya,” *Regnum*, August 21, 2020, <https://regnum.ru/news/3042951.html>.

<sup>112</sup> “Boevoy ‘Ptitselov’: Kakie zadchi budet vypolnyat v VDV aviadesantiruemy zenitny kompleks,” *RT*, March 14, 2018, <https://russian.rt.com/russia/article/491795-pticelov-vdv-zrk>; “ZRK ‘Ptitselov’ djya sukhuputnykh voysk,” *Voennoe Obozrenie*, September 1, 2020, <https://topwar.ru/174633-zrk-pticelov-dlja-suhoputnyh-vojsk.html>; “Aviadesantnemye zenitny raketny kompleks maloy dalnost ‘Ptitselov,’ ” *Novosti VPK*, <https://vpk.name/library/f/pticelov-zrk.html>.

modernized to increase its performance.<sup>113</sup> The Ptitselov will not only appear in the VDV, but a version based on the BMP-3 is also planned for the Ground Forces.<sup>114</sup> Presently, the Ptitselov is undergoing tests and should be introduced in the airborne and ground forces from 2022.<sup>115</sup>

- The Lotos, 2S42, a self-propelled 120-millimeter mortar system that replaces the Nona, of which there are about 750 in the VDV.<sup>116</sup> The same number of Lotos will be delivered to the Airborne Troops by 2025.<sup>117</sup> The vehicle is intended for both the VDV and Naval Infantry and has been shown both in a tracked and a wheeled variant; however, the final version will reportedly be tracked.<sup>118</sup> The Lotos underwent trials in 2019, and serial production was supposed to begin in 2020.<sup>119</sup> However, for unknown reasons, the trials have continued in 2020 and will also happen during 2021, before serial production might begin.<sup>120</sup>
- The reconnaissance vehicle Pervoput, whose development is said to have begun in 2018.<sup>121</sup>

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<sup>113</sup> “Novosti proekta ‘Ptitselov’: unifikatsiya i intellektualnye sistemy,” *Voennoe Obozrenie*, December 9, 2020, <https://topwar.ru/177920-novosti-proekta-ptitelov-unifikacija-i-intellektualnye-sistemy.html>.

<sup>114</sup> Anton Lavrov and Roman Kretsul, “V cetyakh ‘Ptitselova’: PVO vooruzhat zenitnymye kompleksami— ‘Avtomatami,’” *AviaPORT*, December 4, 2020, <https://www.aviaport.ru/digest/2020/12/04/660729.html>.

<sup>115</sup> Anton Lavrov, Roman Kretsul, “‘Ptitselov’ s laserom: Sukhupotnye voyska poluchat novy kompleks PVO,” *Izvestia*, August 31, 2020, <https://iz.ru/1054601/anton-lavrov-roman-kretcul/ptitelov-s-lazerom-sukhopotnye-voyska-poluchat-novy-kompleks-pvo>; “Boevoy ‘Ptitselov’: Kakie zadchi budet vypolnyat v VDV aviadesantiruemy zenitny kompleks,” *RT*, March 14, 2018, <https://russian.rt.com/russia/article/491795-ptitelov-vgv-zrk>; “ZPK ‘Ptitselov’: v voyskakh s 2022 goda,” *Voennoe Obozrenie*, March 15, 2018, <https://topwar.ru/137839-zrk-ptitelov-v-voyskakh-s-2022-goda.html>.

<sup>116</sup> Andrey Mikhaylov, “‘Lotos’ dlya VDV: v Rossii ispytayot novuyu ‘samokhdku,’” *Gazeta.ru*, November 25, 2020, <https://www.gazeta.ru/army/2020/11/25/13374751.shtml>.

<sup>117</sup> “Chem noveyshaya samokhodka dlya VDV 2S42 ‘Lotus’ lushie ‘Nony,’” *Reporter*, December 24, 2020, [https://topcor.ru/17890-chem-noveyshaya-samokhodka-dlja-vgv-2s42-lotos-luchshe-nony.html?utm\\_source=warfiles.ru](https://topcor.ru/17890-chem-noveyshaya-samokhodka-dlja-vgv-2s42-lotos-luchshe-nony.html?utm_source=warfiles.ru).

<sup>118</sup> “V seti poyavilis izobraschenie noveyshchey samokhodkidlya VDV Lotus,” *TV Zvezda*, January 2, 2019, <https://tvzvezda.ru/news/opk/content/201901021219-99hd.htm>; “Novaya samokhdka ‘Lotos’ proydet gosispytanya v 2019 gody,” *MIL.PRESS VOENNOE*, December 18, 2018, <https://военное.рф/2018/%D0%92%D0%B4%D0%B220/>.

<sup>119</sup> “Novaya samokhdka ‘Lotos’ proydet gosispytanya v 2019 gody,” *MIL.PRESS VOENNOE*, December 18, 2018, <https://военное.рф/2018/%D0%92%D0%B4%D0%B220/>.

<sup>120</sup> “Nachalis ispytnaya” letayushchey samokhodki ‘Lotos,’” *Rossiyskaya Gazeta*, August 3, 2020, <https://rg.ru/2020/08/03/nachalis-ispytaniia-letaiushchey-samokhodki-lotos.html>; “SAO ‘Lotos’ v pereryve mezhdru ispytaniyami,” *Voennoe Obozrenie*, November 30, 2020, <https://topwar.ru/177547-sao-lotos-v-pereryve-mezhdru-ispytaniyami.html>.

<sup>121</sup> “Russkiy ‘Pervoput’ uvidit vse: razvedchik na base BMD-4M poyavitsya v VDV,” *Novosti VPK*, December 12, 2018, [https://vpk.name/news/237692\\_russkii\\_pervoput\\_uvidit\\_vse\\_razvedchik\\_na\\_baze\\_bmd-4m\\_poyavitsya\\_v\\_vdv.html](https://vpk.name/news/237692_russkii_pervoput_uvidit_vse_razvedchik_na_baze_bmd-4m_poyavitsya_v_vdv.html).

- The recovery vehicle Affekt-M.<sup>122</sup>
- The BMD-4M will also form the basis for an anti-tank vehicle equipped with the Kornet-D1 missile. Trials of the vehicle were reportedly concluded in late 2020.<sup>123</sup> The man-portable version of the Kornet has already been introduced in the VDV, and it is also equipping the armored cars Tigr and Typhoon-VDV.<sup>124</sup> The Kornet will replace all the older anti-tank missiles in the VDV's inventory. The anti-tank version of the BMD-4M will equip the anti-tank battalions in the VDV.
- The BTR-MDM, from which the following variants have been developed:
  - The BMM-D, a medical vehicle that comes in different versions, including a first aid post.<sup>125</sup>
  - The fire-control vehicle Zavet-D, developed in parallel with the Lotos, which underwent trials in 2019 and will replace the Reostat.<sup>126</sup>
  - The MP-D and the MRU-D, an anti-aircraft command vehicle and a radar vehicle, respectively.<sup>127</sup> During 2018, they were introduced in a limited number to the GAD 98 and, possibly, also to the GAD 106.<sup>128</sup>
  - The nuclear, biological and chemical (NBC) defense vehicle RKhM-5M. Serial production and delivery was planned to begin in 2018, but it is unclear as to how many vehicles were

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<sup>122</sup> “Bolee desyati obraztsov. Na base BMD-4M sozdatut novye boevye mashiny,” *Novosti VPK*, May 21, 2018, [https://vpk.name/news/215756\\_bolees\\_desyati\\_obraztsov\\_na\\_baze\\_bmd-4m\\_sozdatut\\_novye\\_boevye\\_mashiny.html](https://vpk.name/news/215756_bolees_desyati_obraztsov_na_baze_bmd-4m_sozdatut_novye_boevye_mashiny.html).

<sup>123</sup> Anton Lavrov, Roman Kretsul, “‘Kornety’ v telyashkakh: desantnikov perebooryshayut raketami-ubiycami,” *Izvestia*, November 5, 2020, <https://iz.ru/1082790/anton-lavrov-roman-kretsul/kornety-v-telniashkakh-desantnikov-perevooruzhaiut-raketami-ubiycami>.

<sup>124</sup> *Ibid.*

<sup>125</sup> “BMM.D ‘Injuries’ armored medical vehicle airborne,” *SOLDAT.PRO*, July 7, 2019, <https://soldat.pro/2018/07/07/bmm-d-travmatizm-bronirovannaya-medicinskaya-mashina-vdv/>; “Bronirovannaya meditsinskaya mashina desantnaya BMM-D ‘Travmatizm,’” *Bastion-Karpenko*, accessed January 17, 2021, <http://bastion-karpenko.ru/bmm-d/>.

<sup>126</sup> “V 2019 godu v interesakh VDV budut ispytyvatsya novaya sistema i sovremennaya mashina upravleniya,” *Ministry of Defense of the Russian Federation*, December 17, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12208470@egNews](https://function.mil.ru/news_page/country/more.htm?id=12208470@egNews); Eugeny Radugin, “Na vooruzhenie VDV postupit novaya mashina upravleniya ognem ‘Zavet-D,’” *Politikus*, December 19, 2018, <https://politikus.ru/army/114922-na-vooruzhenie-vdv-postupit-novaya-mashina-upravleniya-ognem-zavet-d.html>.

<sup>127</sup> “VDV stanovyatsya silnee. Moduli razvedki i upravleniya MRU-D i MP-D idut v voyska,” *Voennoe Obozrenie*, June 21, 2018, <https://topwar.ru/143306-moduli-razvedki-i-upravleniya-mru-d-i-mp-d.html>.

<sup>128</sup> *Ibid.*; “Moduli razvedki i upravleniya MRU-D i MP-D podsystemy MRU-D i MP-D ‘Barnaul-T’ povyshayut boevuyu effektivnost VDV Rossii,” <http://www.npp-rubin.ru/m/news/moduli-razvedki-i-upravleniya-mru-d-i-mp-d-podsystemy-barnaul-t>.

actually delivered and to which units.<sup>129</sup> It is likely that 14 were planned to be delivered in 2019.<sup>130</sup>

In addition to the above-mentioned vehicles, the Airborne Troops are equipped with the armored car Tigr, with 40 of them having been delivered to VDV reconnaissance units in 2017.<sup>131</sup> Whether additional deliveries followed is not known, but in 2013 the VDV apparently planned to acquire 100–159 Tigrs.<sup>132</sup> Tests with another armored vehicle, the 4x4-wheeled personnel carrier K-4386 Typhoon-VDV, began in 2018, and serial production was initially said to begin in 2019; but it seems delivery of the vehicle will commence first in 2021.<sup>133</sup> The tests are still ongoing, and *spetsnaz* and reconnaissance units are the first in line to receive the new vehicle. The Typhoon-VDV will also form the basis for the 2S41 Drok, carrying an 82-millimeter mortar system, which was tested during 2019. Tests which will continue through 2021.<sup>134</sup> It remains unknown when or even if the Drok will enter service with VDV units.<sup>135</sup>

In addition to the vehicles mentioned above, the VDV will receive a light vehicle, a buggy based on the Strela.<sup>136</sup> This vehicle is presently under development, and it is not known when the VDV plans to procure it.

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<sup>129</sup> “V VDV prinyali na booruzhenie noveyshuyo razvedyvatelnuyo mashinu RKHM-5M,” *Ministry of Defense of the Russian Federation*, November 10, 2017, [https://function.mil.ru/news\\_page/country/more.htm?id=12150159@egNews](https://function.mil.ru/news_page/country/more.htm?id=12150159@egNews).

<sup>130</sup> “Rossiyskie desantniki poluchili pervye 3 iz 14 zakazannykh novykh mashin RKHM-5M,” *Tekhnosfera.Rossya*, April 15, 2019, <https://zen.yandex.ru/media/id/5a8fcb9ba86731ba0472e70f/rossiyskie-desantniki-poluchili-pervye-3-iz-14-zakazannykh-novykh-mashin-rhm5m-5cb4dcb09abb9f00b09666bf>.

<sup>131</sup> “VDV poluchili 40 mashin ‘Tigr’ s boevymi modulyami ‘Arbalet,’ ” <https://sdelanounas.ru/blogs/107221/>.

<sup>132</sup> “VDV planiruyut zakupit bronemashiny ‘Tigr’ i zhdut novuyu razrabotku ot KamAza, TASS, August 1, 2013, <https://tass.ru/politika/557112>.

<sup>133</sup> “VDV Rossii poluchat letayushchie KamAZy,” *Rossiskaya Gazeta*, March 14, 2017, <https://rg.ru/2017/03/14/reg-pfo/vdv-rossii-poluchat-letayushchie-kamazy.html>; Roman Azanov, Dmitri Fedjushko, “Kakuyo boevuyu tekhniku poluchit rossiskaya armiya v 2021 godu,” TASS, January 14, 2021.

<sup>134</sup> “Kompleksy ‘Floks,’ ‘Drok’ i ‘Magnolya’ nachnut porizvodit v 2021 gody,” *Rossiskaya Gazeta*, February 6, 2020, <https://rg.ru/2020/02/06/reg-szfo/kompleksy-floks-drok-i-magnoliia-nachnut-proizvodit-v-2021-godu.html>.

<sup>135</sup> “Novye 82-mm samohodny minomet dlya VDV proidyot gosispitaniya v 2019 gody,” *MIL.PRESS VOENNOE*, December 11, 2018, <https://военное.рф/2018/%D0%90%D1%80%D1%82%D0%B8%D0%BB%D0%BB%D0%B5%D1%80%D0%B8%D1%8F2/>, <http://tehnoosk.ru/node/3562>.

<sup>136</sup> “Podrazdeleniya VDV ‘lekovo tipa’ onastyat skorostnymi baggi tipa ‘Strela,’ ” *TV Zvezda*, July 31, 2020, [https://tvzvezda.ru/news/forces/content/2020731356-BOqws.html?utm\\_source=tvzvezda&utm\\_medium=longpage&utm\\_campaign=longpage&utm\\_term=v1](https://tvzvezda.ru/news/forces/content/2020731356-BOqws.html?utm_source=tvzvezda&utm_medium=longpage&utm_campaign=longpage&utm_term=v1).

The notable equipment-related changes to the Airborne Troops have involved more than just the introduction of new or modernized vehicles. In particular, all units in the VDV have been outfitted with the new Andromeda-D command-and-control system. Additionally, the artillery units received fire control radars. And during 2018, all units were provided with the Ratnik infantry combat system.<sup>137</sup> The same year, the VDV also received a total of 15 Orlan-10 and Eleron-3 UAV-systems, bringing the overall number of UAV systems within the Airborne Troops to more than 70.<sup>138</sup>

New parachute systems for dropping personnel and equipment are also being developed.<sup>139</sup> This includes the above-mentioned PBS-950U/Bakhchia-U-PDS, intended for airdrops of the BMD-4M and the BTR-MDM. Since the PBS-950U is not a platform-specific system, its broad adoption by the VDV promises to shorten the time required to ready parachute dropped vehicles for combat after landing.<sup>140</sup> According to the CEO of Tekhnodynamika, trials of the system were concluded in 2018, and 100 systems were to be provided to the VDV in 2019.<sup>141</sup> But one source has noted that just 15 systems were actually delivered in 2019, and apparently the tests continued until mid-2020.<sup>142</sup>

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<sup>137</sup> “Modernizatsiya vozdushno-desantnykh voysk: novye namereniya,” *Voennoe Obozrenie*, March 19, 2018, <https://topwar.ru/137985-modernizatsiya-vozdushno-desantnykh-voysk-rezultaty-i-plany.html>, <https://sdelanounas.ru/blogs/111287/>.

<sup>138</sup> “V 2018 godu na vooruzheniye VDV postupili sovremennyye kompleksy bespilotnoi aviatsii,” *Ministry of Defense of the Russian Federation*, December 31, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12210555@egNews](https://function.mil.ru/news_page/country/more.htm?id=12210555@egNews); “Park sovremennykh bespilotnykh letatelnykh apparatov VDV naschityvaet bolee 70 kompleksov pazlichenovo naznacheniya,” *Ministry of Defense of the Russian Federation*, December 30, 2018, [http://contract.mil.ru/sel\\_contract/news/more.htm?id=12210459@egNews](http://contract.mil.ru/sel_contract/news/more.htm?id=12210459@egNews).

<sup>139</sup> Aleksey Degtyarev, “V Rossii reshili razrabotat novye parashyuy,” *Vzglyad*, December 7, 2018, <https://vz.ru/news/2018/12/7/954260.html>.

<sup>140</sup> “Noveyshaya sistema desantirovaniya ‘Bakhta-U-PDS’ savershila ispytaniya,” *Voennoe Obozrenie*, May 31, 2018, <https://topwar.ru/142425-noveyshaya-sistema-desantirovaniya-bakhta-u-pds-zavershila-ispytaniya.html>.

<sup>141</sup> Natalya Valkhanskaya, “V VDV rasskazali o ne imeyushchey analogov v mire parashytunoy sisteme,” *TV Zvezda*, March 5, 2016, <https://tvzvezda.ru/news/forces/content/201803050435-ka5m.htm>; Aleksey Gondarev, “Minobornoye poluchilo 31 komplekt novoy parashutnoy sistemy,” *TV Zvezda*, July 26, 2018, <https://tvzvezda.ru/news/opk/content/201807262053-wttx.htm>.

<sup>142</sup> Aleksey Aksyutenkov, “VDV rassekrechivaet novye parashyuti,” *Nezavisimaya Gazeta*, July 30, 2020, [https://nvo.ng.ru/nvo/2020-07-30/1\\_1102\\_parachute.html](https://nvo.ng.ru/nvo/2020-07-30/1_1102_parachute.html).

# Manning

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The personnel strength of the VDV totaled 45,000 in 2020, according to *Military Balance*, a figure also mentioned by Russian sources and in principle not changed since 2015. However, the past several years of organizational changes foresee this figure eventually increasing to around 60,000 or even 72,000.<sup>143</sup> In 2018, military media reports suggested that the personnel size of the VDV had increased by 48 percent between 2012 and 2018.<sup>144</sup> If that figure is correct, the actual personnel strength would be around 52,000, assuming that the personnel strength in 2012 was about the same as in 2010—35,000.<sup>145</sup> Indeed, 52,000 is not unreasonable against the background of recent organizational changes. At the same time, the proportion of conscripts in the VDV is clearly decreasing: during the autumn 2017 call-up period, new draftees numbered only 5,000, and three years later—2,500.<sup>146</sup> Currently, approximately 70 percent of total personnel, about 30,000, consists of contract soldiers, a figure ultimately intended to increase to 80 percent by the end of 2020.<sup>147</sup> Moreover, around 10 percent of the conscripts serving in the VDV reportedly apply for employment as contract soldiers every year.<sup>148</sup> In 2016, the then-commander of the VDV, Vladimir Shamanov, declared that the ideal personnel mix

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<sup>143</sup> “Chislennost VDV Rossii planiruetsya uvelichit do 71 tysyach chelovek,” *Rossiskaya Gazeta*, August 6, 2014, <https://rg.ru/2014/08/06/vdv-anons.html>, <https://tass.ru/armiya-i-opk/2018491>; “Vladimir Shamanov o planakh razvitiya Vozdushno-desantnykh voysk,” *Arms-expo.ru*, July 31, 2015, [http://www.arms-expo.ru/news/vooruzhennye\\_sily/vladimir\\_shamanov\\_o\\_planakh\\_razvitiya\\_vozdushno\\_desantnykh\\_voysk/](http://www.arms-expo.ru/news/vooruzhennye_sily/vladimir_shamanov_o_planakh_razvitiya_vozdushno_desantnykh_voysk/).

<sup>144</sup> Aleksandr Tikhonov, “Desant narashchivaet mobilnost i moshch,” *Krasnyaya Zvezda*, February 22, 2019, <http://redstar.ru/desant-narashchivaet-mobilnost-i-moshh/>.

<sup>145</sup> Anton Lavrov, “Voyska tumannovo naznacheniya,” *Kommersant*, August 2, 2010, <https://www.kommersant.ru/doc/1475967>.

<sup>146</sup> Aleksandr Tikhonov, “Krylataya gvardiya narashchivaet boevoy potentsial,” *Krasnyaya Zvezda*, March 12, 2018, <http://redstar.ru/krylataya-gvardiya-narashchivaet-boevoy-potentsial/>; “Kolichestvo pryzivnikov v VDV sokratilos v dva raza za chetyre goda,” *RIA Novosti*, January 30, 2018, <https://ria.ru/20180130/1513569076.html>; “Bolee 400 pryzivnikov do kontsa goda popolnyat ryady Pskovskovo desantno-shturmovo soedineniya VDV,” *Ministry of Defense of the Russian Federation*, November 18, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12325326@egNews](https://function.mil.ru/news_page/country/more.htm?id=12325326@egNews).

<sup>147</sup> “VDV na 80% budut sostoyat iz kontraktnikov k 2020 godu,” *RIA Novosti*, March 12, 2018, <https://ria.ru/20180312/1516129452.html>; “Shamanov: pri perekhode armii na kontraktnuuyu osnovu nuzhno ostavit v VDV 20% srochnikov,” *TASS*, March 13, 2019, <https://tass.ru/armiya-i-opk/6423873>, <https://rg.ru/2020/10/14/v-desant-vozm-25-tysiachi-novobrancev.html>.

<sup>148</sup> Aleksandr Tikhonov, “Krylataya gvardiya narashchivaet boevoy potentsial,” *Krasnyaya Zvezda*, March 12, 2018, <http://redstar.ru/krylataya-gvardiya-narashchivaet-boevoy-potentsial/>.

for the service is 20 percent conscripts and 80 percent contract soldiers.<sup>149</sup> Conscripts are today found in all VDV units, with the exception of the GAABde 31, which is entirely manned by contract soldiers.<sup>150</sup> The reason behind this continued reliance on conscripts is twofold: first, it is a way to recruit contract soldiers, and second, it helps establish a manning pool for mobilization purposes.<sup>151</sup> In wartime, such a pool might be the 44<sup>th</sup> Airborne Division<sup>152</sup>—not to be a division *per se*, but a manning pool providing VDV units with replacement personnel.<sup>153</sup>

Since 2015, the DOSAAF, a Russian voluntary defense organization, has carried out basic parachute training for conscripts who are to be drafted into the VDV. A course named BUS-100, lasting 132 hours (with 71 hours specifically allocated for parachute training), includes three jumps.<sup>154</sup> As of the fall of 2017, about 1,800 conscripts had already gone through such training, thus reducing the necessary time the VDV would have needed to allocate to basic parachute training for its incoming draftees.<sup>155</sup>

All conscripts drafted into the VDV have to belong to “health group A”—i.e., possessing absolutely no limitations due to their health and weighing no more than 95 kilograms. No information is publicly available regarding how tall a Russian parachutist soldier must be; but a *spetsnaz* soldier is not allowed to be taller than 185 centimeters and no shorter than 170 centimeters.<sup>156</sup> It is reasonable to assume that the same range applies to troops entering the VDV.

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<sup>149</sup> “Do 2021 goda chislo kontraktnikov v VDV dovedut do 80%,” *MIL.PRESS VOENNOE*, March 12, 2018, <https://военное.рф/2018/%D0%92%D0%B4%D0%B24/>.

<sup>150</sup> “Ogranichenny prizyv,” *Rossiskaya Gazeta*, May 25, 2020, <https://rg.ru/2020/05/25/shest-tysiach-novobrancev-popolnial-tdv-v-tekushchij-prizyv.html>.

<sup>151</sup> “Do 2021 goda chislo kontraktnikov v VDV dovedut do 80%,” *MIL.PRESS VOENNOE*.

<sup>152</sup> In the Soviet era, this division was previously a training division located in Kaunas, Lithuania, which, in 1987, was renamed the 242<sup>nd</sup> Training Center. In 1993, it was relocated to Omsk and Ishim, in the Russian Federation. “242Uts VDV,” *Sbor Dannykh*, accessed January 17, 2021, <https://desantura.ru/forum/forum18/topic77/>.

<sup>153</sup> Information presented to the author.

<sup>154</sup> “Obuchenie VUs-100d,” *DOSAAF*, accessed January 17, 2021, <http://dosaaf-chel.ru/obuchenie-vus-100d-strelok-parashjutist/>.

<sup>155</sup> “Elita v udare,” *Rossiskaja Gazeta*, August 1, 2017, <https://rg.ru/2017/08/01/komanduiushchij-tdv-sejchas-nachali-gotovit-desantnikov-so-shkolnoj-skami.html>, Evgeniya Grebelkina, “Vologodskiy aeroklub DOSAAF prodolzhit gotovit desantnikov,” *Komsomolskaja Pravda*, August 8, 2018, <https://www.vologda.kp.ru/daily/26865/3908013/>.

<sup>156</sup> Yuriy Gavrilov, “Prizyvnik ot ‘A’ do ‘D,’ ” *Rossikaya Gazeta*, November 15, 2018, <https://rg.ru/2018/11/15/iz-za-chego-prizyvnik-ne-vozmuet-v-armiiu.html>.

## Exercises

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The Airborne Troops have more than 50 training ranges at the service's disposal where comprehensive parachute drop drills can be carried out.<sup>157</sup> And the number of ranges is increasing: in 2020, the VDV obtained a new range at Sinyaya Osoka, in Ivanvo Oblast.<sup>158</sup> In the last few years, these ranges have undergone noticeably more intensive use as the VDV has ramped up its exercise schedule—and not solely within the borders of the Russian Federation. In 2019, the VDV participated in more than 50 bi- and multinational training activities.<sup>159</sup> This was also the case in 2018, when the VDV carried out 50 bilateral exercises with units from Egypt, Kyrgyzstan, Serbia and Belarus.<sup>160</sup> One such routine exercise is Slavyanskoye Bratsvo (Slavic Brotherhood), last held in Belarus, in September 2020.<sup>161</sup> Slavyanskoye Bratsvo is an exercise with the participation of Russian, Belarusian and Serbian paratroopers and has been a yearly event since 2015, with the participating countries alternating as hosts.<sup>162</sup> In 2020, because of the political developments in Belarus following the presidential election, Serbia abstained from sending any troops to the exercise.<sup>163</sup>

Another example of the Airborne Troops' multinational activities is the exercise Defenders of Friendship, involving Russian and Egyptian paratroopers. The first of this series of exercises took place

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<sup>157</sup> “U rossiyskikh desantnikov poyavilos okolo 20 novykh ploshchadok prizemleniya,” *Novosti VPK*, February 19, 2018, [https://vpk.name/news/206946\\_u\\_rossiyskikh\\_desantnikov\\_poyavilos\\_okolo\\_20\\_novykh\\_ploshchadok\\_prizemleniya.html](https://vpk.name/news/206946_u_rossiyskikh_desantnikov_poyavilos_okolo_20_novykh_ploshchadok_prizemleniya.html).

<sup>158</sup> Ivan Bulvaltsev, “V polnoy gotovnosti k nachalu uchoby,” *Krasnaya Zvezda*, November 30, 2020, <http://redstar.ru/v-polnoj-gotovnosti-k-nachalu-uchoby/>.

<sup>159</sup> “Okolo 2000 rossiyskikh desantnikov v 2019 godu primut uchastie v sovместnykh ucheniyakh s zarubezhnyimi kollegami,” *Pskovskaya Lenta Novostey*, November 1, 2018, <https://pln-pskov.ru/society/333058.html>.

<sup>160</sup> “Komanduyushchiy VDV prinyal uchastie v rasshirennom zasedanii Kollegii Minoborony Rossii,” *Ministry of Defense of the Russian Federation*, December 18, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12208660@egNews](https://function.mil.ru/news_page/country/more.htm?id=12208660@egNews).

<sup>161</sup> “Uchastvovashie v uchenii ‘Slavyanskoe bratsvo-2020’ rossiyskie desantniki gotovyatsya k vozvrashcheniyu is Belorussii v Rossiyu,” *Ministry of Defense of the Russian Federation*, September 25, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12316195@egNews](https://function.mil.ru/news_page/country/more.htm?id=12316195@egNews).

<sup>162</sup> Pavel Felgenhauer, “Sokraschenie slavyanskovo bratsvo,” *Novaya Gazeta*, September 14 2020, <https://novayagazeta.ru/articles/2020/09/14/87077-sokraschenie-slavyanskogo-bratstva>.

<sup>163</sup> Milica Stojanovic, “Serbia Quits Joint Military Exercise, Citing ‘Terrible EU Pressure,’” *Balkan Insight*, September 10, 2020, <https://balkaninsight.com/2020/09/10/serbia-quits-joint-military-exercise-citing-terrible-eu-pressure/>.

in Egypt, on October 15–26, 2016 in the vicinity of Alexandria.<sup>164</sup> The latest took place in Ryazan Oblast, in August 2019, with the participation of the GAD 106, Egyptian paratroopers and, for the first time, also Belarusian special forces.<sup>165</sup> Defenders of Friendship 2020 was planned to be held in Egypt, but there has been no information released about any preparations for the exercise or reports that it was ultimately ever carried out.<sup>166</sup>

An important insight into the implications of the VDV's exercise regimen came in a 2018 interview in *Krasnaya Zvezda* with the airborne service's chief of staff, Lieutenant General Nikolai Ignatov, in which he gave an account of what had been accomplished during the winter training cycle (December 1, 2017–June 1, 2018). The planned exercises carried out during this period included:<sup>167</sup>

- 72 staff and command post exercises
- 250 tactical airdrop exercises
- 130 exercises with artillery and anti-aircraft units
- 1,100 live fire exercises

Ignatov also underscored that the intensity of drills during that training cycle had increased by 8.5 percent.<sup>168</sup> Officials routinely present such figures in connection with the closure of every training cycle for the Russian Armed Forces. Such statistics are difficult to check and, in some cases, are rather dubious considering how weather or the availability of exercise directors and ranges impact on training plans.

All in all, the VDV held 500 tactical exercises during 2018; and for the first time that year, the drills included the airdrop of a battalion combat group with all of its equipment.<sup>169</sup> That intensive exercise

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<sup>164</sup> Jörgen Elfving, "Egyptian Paratroopers on Russian Soil: 'Defenders of Friendship 2019,'" *Eurasia Daily Monitor*, Volume 16, Issue 133, The Jamestown Foundation, September 30, 2019, <https://jamestown.org/program/egyptian-paratroopers-on-russian-soil-defenders-of-friendship-2019/>.

<sup>165</sup> "Bolee 1000 desantnikov Rossii, Egipta i Belorussii primut uchastie v sovместnom mezhdunarodnom takticheskom uchenii "Zashchitniki družby-2019,'" *Ministry of Defense of the Russian Federation*, August 16, 2019, [https://function.mil.ru/news\\_page/country/more.htm?id=12247993@egNews](https://function.mil.ru/news_page/country/more.htm?id=12247993@egNews).

<sup>166</sup> Ibid.

<sup>167</sup> Aleksander Tikhonov, "Krylataya gvardiya vykhodit na poligony," *Krasnaya Zvezda*, May 28, 2018, <http://redstar.ru/krylataya-gvardiya-vyhodit-na-poligony/>.

<sup>168</sup> Ibid.

<sup>169</sup> "Komanduyoshchiy VDV vruchil Boevoe znamya novomu komandiru 7-y gvardeyskoy Krasnoznamennoy desantno-shturmovy divisi (gornoy)," *Ministry of Defense of the Russian Federation*, February 1, 2019, <https://structure.mil.ru/structure/forces/airborne/news/more.htm?id=12215419@egNews>; "Bolee 300 edinits tekhniki,

tempo continued the following year. In 2019, one division, the GAAD 7, alone carried out one staff and command post exercise, three regimental exercises and a hundred company-level exercises.<sup>170</sup>

For 2021 the following exercises are foreseen;<sup>171</sup>

- 2,600 live fire exercises.
- Four regimental and 16 battalion exercises, which include dropping of personnel and equipment.
- 50 international activities, out of which 7 are joint exercises.
- More 150,000 parachute jumps from fixed and rotary wing aerial vehicles.
- Participation in Army Games 2021.
- Kavkaz 2021.

One of the most comprehensive exercises, jointly involving the VDV and Military Transport Aviation (*Voyenno-Transportnoy Aviatsii—VTA*), was carried out in the Ryazan area, on July 9–13, 2018. The participation by the VTA was unprecedented; while the exercise, in and of itself, showcased some interesting and novel features, including ostensibly (as described above) the first ever aerial drop of a BTR-MDM armored personnel carrier with a crew of three onboard.<sup>172</sup>

The mid-July 2018 exercise involved the 137<sup>th</sup> Airborne Regiment (Ryazan) of the GAD 106, organized into two battalion combat groups and reinforced by two artillery battalions armed with 2S9 Nona mortars, an artillery battery with D-30 howitzers, and an anti-aircraft company equipped with Strela-10M low-altitude surface-to-air missile systems.<sup>173</sup> Additionally, special forces as well as UAVs, ECM

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vorouzheniya i gruzov desantirovano Vozdushno-desantnymi voyskami v 2018 godu,” *Ministry of Defense of the Russian Federation*, January 3, 2019, [https://function.mil.ru/news\\_page/country/more.htm?id=12210771@egNews](https://function.mil.ru/news_page/country/more.htm?id=12210771@egNews).

<sup>170</sup> “Komanduyoshchiy VDV vruchil Boevoe znanya novomu,” *Ministry of Defense of the Russian Federation*.

<sup>171</sup> “Bolee 2,6 tys. strelb i bolee 150 tys. pryzhkov s parashyotom sovershat rossiyskie desantniki v 2020-2021 uchebnom godu,” *Ministry of Defense of the Russian Federation*, December 1, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12327841@egNews](https://function.mil.ru/news_page/country/more.htm?id=12327841@egNews).

<sup>172</sup> Jörgen Elfving, “Russia Flexes Muscles of Airborne Forces,” *Eurasia Daily Monitor*, Volume 15, Issue 117, The Jamestown Foundation, August 6, 2018, <https://jamestown.org/program/russia-flexes-muscles-of-airborne-forces/>.

<sup>173</sup> “V Ryazanskoj oblast v ramkakh polkovo takticheskovo ucheniya nachalsya sbor s rukovodyashchim sostavom voinskikh chastey i soedineniy VDV,” *Ministry of Defense of the Russian Federation*, July 9, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12184942@egNews](https://function.mil.ru/news_page/country/more.htm?id=12184942@egNews); “Podrazdeleniya Ryazanskovo parashutno-desantnovo polka nachali podgotovku k desantirovaniyo na passtoyanii poryadka 1000 kilometrov ot mest pogruzki v samoleti voenno-transportnoy aviatsii,” *TV Zvezda*, July 11, 2018, [https://tvzvezda.ru/news/forces/content/8b94c0822e3e8726e386b6b548be4b0dc3fc9b504f2dcdbf35a60e9a08dba8a7](https://tvzvezda.ru/news/forces/content/8b94c0822e3e8726e386b6b548be4b0dc3fc9b504f2dcdbf35a60e9a08dba8a7;); Kristina Ukolova, “Desantniki i lyotchiki snova v odnom nebe,” *Krasnaya Zvezda*, July 11, 2028, <http://redstar.ru/desantniki-i-lyotchiki-snova-v-odnom-nebe/?attempt=1>.

and engineering units reinforced the regiment.<sup>174</sup> In total, 2,500 soldiers and about 200 armored vehicles (BMD-4M, BMD-2K-AU, BTR-MDM and BMD-KSh) took part in the exercise, which was jointly directed by the commanders of the VDV and the VTA, Colonel General Serdiukov and Lieutenant General Vladimir Benediktov, respectively.<sup>175</sup>

According to Serdiukov, the exercise comprised three phases (common to most similar exercises in the VDV): 1) preparations for and relocation from Ryazan to airfields in Ivanovo and Ulyanovsk oblast, 2) the loading of personnel and equipment, and 3) the actual airdrop and ensuing simulated combat. The last phase in connection with the exercise in July 2018 involved attacking an enemy command post followed by relocation, which included fording a stretch of water and, thereafter, seizing and holding terrain in order to ensure a high tempo of advance by the main forces—all with the support of artillery and frontal and army aviation.<sup>176</sup> Air support was provided by MiG-31BM and Su-27 fighters, Su-24 attack jets, and Mi-24 attack helicopters—in total, 70 aircraft.<sup>177</sup>

In order to airlift the 137<sup>th</sup> Airborne Regiment, three air transport regiments (the 117<sup>th</sup>, 334<sup>th</sup> and 708<sup>th</sup>) were employed and relocated from their ordinary bases to airfields in Ivanovo and Ulyanovsk oblasts. According to one source, 45 Il-76 strategic transport planes took part in the exercise.<sup>178</sup> At the airfields, personnel and equipment were loaded after the 137<sup>th</sup> Airborne Regiment arrived from Ryazan via a different means of transportation, a distance of about 300 kilometers to Ivanovo and 700 kilometers to Ulyanovsk.<sup>179</sup> Presumably, additional VTA units must have been involved considering the appearance in the drills of other aircraft, besides Il-76s, which the three above-mentioned VTA regiments are not equipped with.

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<sup>174</sup> “V Ryazanskoy oblast v ramkakh polkovo takticheskovo ucheniya,” *Ministry of Defense of the Russian Federation*.

<sup>175</sup> Ibid; “V VTA startovalo uchenie s uchastiem tryokh aviapolkov,” *Ministry of Defense of the Russian Federation*, July 9, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12184949@egNews](https://function.mil.ru/news_page/country/more.htm?id=12184949@egNews).

<sup>176</sup> “V Vozdushno-desantnykh voyskakh nachalos polkovo takticheskoe uchenie,” *Ministry of Defense of the Russian Federation*, July 9, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12184872@egNews](https://function.mil.ru/news_page/country/more.htm?id=12184872@egNews); Kristina Ukolova, “Desantniki i lyotchiki snova v odnom nebe,” *Krasnyaya Zvezda*, July 11, 2018, <http://redstar.ru/desantniki-i-lyotchiki-snova-v-odnom-nebe/?attempt=1>.

<sup>177</sup> Vladimir Mukhin, “Rezerv Verokhovno glavnokomanduyushchevo otrabotal massovoe desantirovanie,” *Nezavisimaya Gazeta*, July 12, 2018, [http://www.ng.ru/politics/2018-07-12/100\\_7265\\_desant.html](http://www.ng.ru/politics/2018-07-12/100_7265_desant.html).

<sup>178</sup> Anton Valagin, “Boenno-transportnuyu aviatsiyu RF podnyali po trevoge,” *Rossiskaya Gazeta*, July 9, 2018, <https://rg.ru/2018/07/09/reg-ufo/voenno-transportnuiu-aviatsiyu-rf-podnyali-po-trevoge.html>; Ilya Kramnik, “Granitsy vozmozhnostey,” *Izvestia*, July 18, 2018, <https://iz.ru/767550/ilia-kramnik/granitsy-vozmozhnostei>.

<sup>179</sup> “Podrazdeleniya Ryazanskovo parashutno-desantnovo polka nachali podgotovku k desantirovaniyu na passtoyanii poryadka 1000 kilometrov ot mest pogruzki v samoleti voenno-transportnoy aviatsii,” *TV Zvezda*, July 11, 2018, <https://tvzvezda.ru/news/forces/content/8b94c0822e3e8726e386b6b548be4b0dc3fc9b504f2dcbf35a60e9a08dba8a7>.

The actual airdrop exercises took place at Zhitovo and, about 75 kilometers away, at Noviki—both in Ryazan Oblast. The emphasis was on Zhitovo, where more than 700 parachutists and 50 combat vehicles were dropped. At Noviki, about 500 troops and just 12 combat vehicles were parachuted down.<sup>180</sup> The number of combat vehicles mentioned suggests that less than half of them participating in the exercise were dropped; the rest were either flown in or arrived to the exercise area directly from their respective garrisons. The fact that two drop zones were used was explained by “the need to work out the command of troops at a great distance from the command post with the help of satellite communication systems R-439 and R-142DA.”<sup>181</sup> In all, four command posts (division, regiment and two battalion command posts), all equipped with the Andromeda-D command-and-control system, were active during the exercise.<sup>182</sup>

A similar exercise was carried out on January 11–15, 2018, in the Pskov area, involving 2,000 soldiers from the GAAD 76 and more than 20 aircraft and helicopters.<sup>183</sup> Publicly available photographs believed to be of the exercise show what look to be paratroopers utilizing snow mobiles. It is not possible to establish from these images whether the VDV personnel in question were part of reconnaissance or air-assault units. But either way, the use of snow mobiles naturally offers increased mobility in winter. Interestingly, both this January 2018 exercise and the later exercise in July featured almost the same scenario: airdrops and the ensuing seizure of airfields, bringing in reinforcements, and the elimination of an enemy command post.<sup>184</sup>

If the VDV in 2018 dropped a battalion combat group, the service upped the ante in 2019. During the concluding phase of the exercise Tsentr 2019, an airborne regiment was dropped at the Donguz range in Orenburg Oblast, on September 20.<sup>185</sup> According to the Russian Ministry of Defense, more than 2,000 paratroopers and 200 pieces of equipment were dropped from 71 Il-76s using two drop zones. How many paratroopers actually took part is debatable, as another source specifically mentioned

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<sup>180</sup> Kristina Ukolova, “Desantniki i lyotchiki snova v odnom nebe,” *Krasnyaya Zvezda*, July 11, 2028, <http://redstar.ru/desantniki-i-lyotchiki-snova-v-odnom-nebe/?attempt=1>.

<sup>181</sup> “Podrazdeleniya Ryazanskovo parashutno-desantnovo polka nachali podgotovku k desantirovaniyu,” *TV Zvezda*.

<sup>182</sup> Vladimir Mukhin, “Rezerv Verokhovnovo glavnokomanduyoshchevo otrabotal massovoe desantirovanie,” *Nezavisimaya Gazeta*, July 12, 2018, [http://www.ng.ru/politics/2018-07-12/100\\_7265\\_desant.html](http://www.ng.ru/politics/2018-07-12/100_7265_desant.html).

<sup>183</sup> “Pskovskie desantniki vernulis v PPD posle provedeniya pervovo v 2019 godu masshtabnovo KShU s desantirovaniem lichnovo sostatva i tekhniki,” <https://structure.mil.ru/structure/forces/airborne/news/more.htm?id=12217811@egNews>.

<sup>184</sup> “Desantniki zakhvatili tri aerodroma uslovnovo protivnika v khode masshtabnykh KShU v Pskovoy oblasti,” <https://structure.mil.ru/structure/forces/airborne/news/more.htm?id=12217409@egNews>.

<sup>185</sup> “Bolee 2 tys. voenosluzhashchikh VDV odnovremeno desantirovalis v khode rosygrysha osnovnovo etapa SKShU ‘Tsentr-2019,’” [https://function.mil.ru/news\\_page/country/more.htm?id=12253327@egNews](https://function.mil.ru/news_page/country/more.htm?id=12253327@egNews).

1,500.<sup>186</sup> Initially, 80 Il-76s were reportedly supposed to take part; so the fact that, in the end, only 71 participated in the actual drop suggests some of the machines may have suffered malfunctions.<sup>187</sup> The unit involved was the 217<sup>th</sup> Guards Airborne Regiment of the GAD 98; the whole regiment was probably not dropped.<sup>188</sup> The above-mentioned 71 Il-76s provided a transport capacity of a little more than two parachute battalions, so Russian claims that an entire parachute regiment was dropped is surely not quite consistent with the truth.

Besides at its traditional ranges, the Airborne Troops have also carried out exercises in the High North. Those latter drills are assumed to be the result of the VDV, in 2011, being tasked with protecting Russia's continental shelf in the Arctic, together with the army and the navy.<sup>189</sup> The most spectacular exercise in the Arctic, to date, took place on April 26, 2020, when a group of parachutists were dropped from a height of 10,000 meters, in the vicinity of Franz Josef Land.<sup>190</sup>

Since 2020, a new feature in the training program of the VDV is amphibious landings. The first exercise of this kind was carried out in March 2020, at the Crimean range, with the participation of a reinforced battalion from the 7<sup>th</sup> GAAD, a tank battalion and an artillery battalion. Being able to carry out amphibious landings increases the VDV's capabilities and is part of the broader development of the service into a rapid-reaction force.<sup>191</sup>

From time-to-time, accidents occur during practice maneuvers. One of the more serious ones took place in connection with the exercise Tsentr 2019, when two combat vehicles—either two BMD-2s or one BMD-2 and one Nona-S, depending on the source one is more inclined to believe—fell to the

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<sup>186</sup> “Bolee 2 tys. voenosluzhashchikh VDV Bolee 4 tys. voenosluzhashchikh VDV i 1 tys. edinits VVST zadeystvovovano v strategicheskoy komandno-shtabnoy uchenii ‘Bolee 2 tys. voenosluzhashchikh VDV Tsentr-2019,’” *Ministry of Defense of the Russian Federation*, September 16, 2019, [https://function.mil.ru/news\\_page/country/more.htm?id=12252598@egNews](https://function.mil.ru/news_page/country/more.htm?id=12252598@egNews).

<sup>187</sup> Ibid.

<sup>188</sup> “V Ivanove otmetyat 71-yu godovshchinu so dnya obrazovaniya gvardeyskovo parashutno-desantnoy polki,” *Ministry of Defense of the Russian Federation*, October 1, 2019, <https://structure.mil.ru/structure/forces/airborne/news/more.htm?id=12255015@egNews>.

<sup>189</sup> “V Arktiku otpravlyayot soldat VDV dlya zashchity rossiyskikh territoriy,” *RBC*, May 26, 2011, [https://www.rbc.ru/spb\\_sz/26/05/2011/559299959a794719538c153b?from=materials\\_on\\_subject](https://www.rbc.ru/spb_sz/26/05/2011/559299959a794719538c153b?from=materials_on_subject).

<sup>190</sup> “V Minoborony Rossii obsudili razvitiya Kontseptsii Vysotnoy desantirovaniya,” *Ministry of Defense of the Russian Federation*, October 14, 2020, [https://function.mil.ru/news\\_page/country/more.htm?id=12319377@egNews](https://function.mil.ru/news_page/country/more.htm?id=12319377@egNews).

<sup>191</sup> Anton Lavrov, Roman Kretsul, “Vozdushno-morskie voyska: desant gotovyat dlya vysadki s korably,” *Izvestia*, June 3, 2020, <https://iz.ru/1018883/anton-lavrov-roman-kretsul/vozdushno-morskie-voyska-desant-gotoviat-dlia-vysadki-s-korably>.

ground and crashed because the parachutes did not open.<sup>192</sup> The service reported no fatalities as a result of that incident.

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<sup>192</sup> “S neba ob zemlyo,” *Gur Khan Attacks*, September 25, 2019, <https://zen.yandex.ru/media/gurkhan/s-neba-ob-zemliu-5d8afd8a3d873600b2d96cea>.

# Air Transport

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As with Russian Naval Infantry, the Airborne Troops' Achilles' heel is a shortage of available transport assets. But at the same time, the VDV lacks its own aircraft and helicopters, which currently all belong to the Aerospace Forces (*Vozdushho-Kosmicheskie Sily*—VKS). That said, these limitations are in the process of being at least partly remedied by the introduction of an organic army aviation brigade in the VDV.

According to *Lenta*, in 2016, Russia possessed 90 Il-76 transport aircraft and the same number was mentioned by *Nezavisimoe Voennoe Obozrenie*, in 2018.<sup>193</sup> In contrast, *Izvestia* reported that, in 2019, there were 120 Il-76s in active service<sup>194</sup>—figures similar to what *Military Balance 2020* presents, 105 Il-76s. According to *Izvestia*, the number of Il-76s allows Russian forces to air drop only up to two parachute regiments.<sup>195</sup> This is a drastic reduction compared to the mid-1980s, when three quarters of the personnel in the Soviet airborne forces could be air transported and dropped.<sup>196</sup> Indeed, as *Izvestia* points out, four times as many Il-76s would be needed to simultaneously airdrop both current VDV airborne divisions. Using civilian Il-76s would not solve the problem, as those planes are not intended or equipped for dropping parachutists and could, therefore, only be used to land personnel and equipment. Undoubtedly the Il-76 is a scarce commodity, and the commander of the VTA believes his service needs 150–200 new transport planes of this type.<sup>197</sup>

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<sup>193</sup> Vladimir Moiseev, “Vechny transportnik,” *Lenta*, March 30, 2016, <https://lenta.ru/articles/2016/03/30/snova76/>, [http://nvo.ng.ru/forces/2018-08-10/7\\_1008\\_ruslan.html](http://nvo.ng.ru/forces/2018-08-10/7_1008_ruslan.html).

<sup>194</sup> Ilya Kramnik, “Granitsy vozmozhnostey,” *Izvestia*, July 18, 2018, <https://iz.ru/767550/ilia-kramnik/granitsy-vozmozhnostej>.

<sup>195</sup> Ilya Kramnik, “Perekhod k aeromobilnosti: k chemu pridut desantnye voyska,” *Izvestia*, November 21, 2018, <https://iz.ru/813997/ilia-kramnik/perekhod-k-aeromobilnosti-k-chemu-bridut-desantnye-voyska>; “Kak izmenilis boevye vozmozhnosti izadachi VDV,” *Vzglyad*, August 2, 2019, <https://vz.ru/society/2019/8/2/990429.html>.

<sup>196</sup> Aleksandr Shakovsky, “Voyskam Dyadi Vasi-88let,” *Nezavisimaya Gazeta*, July 31, 2018, [https://nvo.ng.ru/nvo/2018-07-31/100\\_183107\\_88.html](https://nvo.ng.ru/nvo/2018-07-31/100_183107_88.html).

<sup>197</sup> “Komandyushchy: boenno transportnaya aviatsiya nuzhdaetsya v bolshom kolichestve novykh samoletov,” *Voennoe Obozrenie*, October 6, 2017, <https://topwar.ru/126690-komanduyuschiy-voenno-transportnaya-aviatsiya-nuzhdaetsya-v-bolshom-kolichestve-novykh-samoletov.html>.

In 2012, the Russian Ministry of Defense concluded a contract with aircraft manufacturer Aviastar-SP for delivery of 39 modernized Il-76s—the Il-76MD-90A.<sup>198</sup> Of these, only 12 have been produced until the beginning of December 2020.<sup>199</sup> Moreover, Avistar-SP has reportedly encountered technical and economic problems that mean only 13 Il-76MD-90As will be delivered instead of the 39 foreseen in the contract from 2012.<sup>200</sup> As a result, the Russian defense ministry has concluded a new contract with Avistar-SP according to which two Il-76MD-90As will be delivered yearly until 2027—i.e., 14 additional aircraft.<sup>201</sup>

The An-124, the only transport aircraft capable of carrying tanks, is the largest serially produced plane in the world. It is manufactured by the firm Antonov in Kyiv; and until 2004, An-124s were also being built by Aviastar-SP in Ulynaovsk.<sup>202</sup> In 2019, The number of this aircraft in the Russian Aerospace Forces was reportedly 10–16 in active service and about 10 mothballed.<sup>203</sup> Another eight belong to the 224<sup>th</sup> Flight Squadron of the Russian Ministry of Defense, a subsidiary company to the Russian ministry of defense.<sup>204</sup> But over time, they all face becoming phased out of service due to the lack of spare parts domestically as a result of the ongoing conflict between Russia and Ukraine.<sup>205</sup> Since the mid-2000s, the two countries considered multiple initiatives on restarting joint production and concluded a contract in 2013 to that effect; however, Russia’s annexation of Crimea and subsequent

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<sup>198</sup> “Pervy seriynyy samolet Il-76MD-90A peredan Minoborony Rossii,” *RIA Novosti*, April 29, 2015, <https://ria.ru/20150429/1061634982.html>.

<sup>199</sup> “Tretiy v 2020 godu Il-76MD-90A izgotovlen v Ulyanovske,” *Aviatsia Rossii*, December 9, 2020, <https://aviation21.ru/tretij-v-2020-godu-il-76md-90a-izgotovlen-v-ulyanovske/>.

<sup>200</sup> German Kostrinsky, “Minobory pereotsenilo transportnye samoleti,” *Kommersant*, May 28, 2020, [https://www.kommersant.ru/doc/4357839?from=main\\_8](https://www.kommersant.ru/doc/4357839?from=main_8).

<sup>201</sup> Ibid.

<sup>202</sup> “V Rossii nachali sozdavat samolet na smenu An-124 ‘Ruslan,’ ” *Izvestia*, November 12, 2018, <https://iz.ru/811121/2018-11-12/v-rossii-nachali-sozdavat-samolet-na-smenu-124-ruslan>; “Poletit li ‘Ruslan’ na possiyskikh krylyakh,” *Pravda*, July 6, 2018, <https://www.pravda.ru/economics/1388347-ruslan/>.

<sup>203</sup> “Tyazhyoly transportnyy samolet,” *New Defence Order Strategy*, June 25, 2018, <https://dfnc.ru/katalog-vooruzhenij/transportnaya-aviatsiya/an-124/>; Vladimir Karnozov, “Vozvrashchenie ‘Ruslana’ s ‘grazhdanki,’ ” *Ezhenedel'nik Zvezda*, November 23, 2020, <https://zvezdaweekly.ru/news/202011161330-mKqdi.html>.

<sup>204</sup> “Tyazhyoly transportnyy samolet,” *New Defence Order Strategy*; “OAO ‘GOSUDARSTVENNAYA AVIAKOMPANIYA 224 LETNYY OTRYAD,’ ” *TTF Air Heavy Lifting*, accessed January 17, 2021, <http://224lo.com/ru/>.

<sup>205</sup> “‘Nikakikh prav u Kievu net’: kak Rossiya planiruet sozdavat tyazhyoliye samolyoty na baze An-124 ‘Ruslan’ bez uchastiya Ukrainy,” *RT*, June 4, 2018, <https://russian.rt.com/russia/article/519725-an-124-proizvodstvo-ukraina>; “Poletit li ‘Ruslan’ na possiyskikh krylyakh,” *Pravda*, July 6, 2018, <https://www.pravda.ru/economics/1388347-ruslan/>.

invasion of eastern Ukraine starting in 2014 put an end to that project.<sup>206</sup> As a result, Moscow has undertaken a modernization of its existing An-124s, a program initiated in 2017 that will continue until 2022, in order to prolong the airplanes' lifespans until 2040.<sup>207</sup> So far, three aircraft have been modernized and handed over to the VKS, and another two are undergoing modernization.<sup>208</sup>

Russia also plans to develop a new heavy transport aircraft, the PAK TA (also known as the Il-106), which will be able to carry even heavier cargo than the An-124 and is intended to replace the latter. Development began in 2014, with a first test flight scheduled to take place in 2024, followed by serial production possibly in 2027.<sup>209</sup> The production date is somewhat uncertain, however: in December 2018, Duma Defense Committee chairperson Vladimir Shamanov alleged that the PAK TA will be approved for procurement in "2025–2028."<sup>210</sup>

Also, of note are plans to develop a new transport helicopter that will effectively serve the role of a flying combat vehicle. Similar plans existed in the Soviet era and beyond, in the form of further development of the Mi-24.<sup>211</sup> The helicopter now being designed will carry eight soldiers; be armed with missiles, unguided rockets and a heavy machine gun; and feature strong armor plating.<sup>212</sup> Reports suggest the new helicopter may start being delivered as early as 2026.<sup>213</sup> Until then, a modernized

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<sup>206</sup> Ibid.

<sup>207</sup> "An-124 'Ruslan' posle modernizatsii stanet 'rossiyskim,'" *Interfax*, August 26, 2019, <https://www.interfax.ru/russia/673952>.

<sup>208</sup> "VKS poluchat eshcho dva modernizirovannykh samoleta An-124 'Ruslan,'" *Novosti VPK*, April 8, 2020 [https://vpk.name/news/391285\\_vks\\_poluchat\\_eshe\\_dva\\_modernizirovannyh\\_samoleta\\_an-124\\_ruslan.html](https://vpk.name/news/391285_vks_poluchat_eshe_dva_modernizirovannyh_samoleta_an-124_ruslan.html).

<sup>209</sup> "PAK TA – proekt tyazholovo transpotnovo samoleta," *Aviatsiya Rossii*, April 14, 2011, <https://aviation21.ru/pak-ta/>, <https://vpk-news.ru/articles/45509>, <https://aviavent476.ru/archives/32492>.

<sup>210</sup> Vadim Cinityn, "Temp ochen vysokii: eks-glavkom VKS RF rasskazal o protsesse sozdaniya PAK DA," *TV Zvezda*, December 26, 2018, <https://tvzvezda.ru/news/opk/content/201812262202-l1bs.htm>.

<sup>211</sup> "Letayushchaya bronya: pochemu novyy vertolet dlya VDV hazvali boeboy mashinoy," *Novosti VPK*, August 29, 2018, [https://vpk.name/news/226149\\_letayushaya\\_bronya\\_pochemu\\_novyii\\_vertolet\\_dlya\\_vdv\\_nazvali\\_boevoi\\_mashinoy.html](https://vpk.name/news/226149_letayushaya_bronya_pochemu_novyii_vertolet_dlya_vdv_nazvali_boevoi_mashinoy.html).

<sup>212</sup> "Dlya chevo possiyskiskikh desantnikov peresazhivayut na tankii vertolety," *RIA Novosti*, December 3, 2018, <https://ria.ru/20181203/1535571531.html>; "Letayushchaya bronya: pochemu novyy vertolet dlya VDV hazvali boeboy mashinoy," *Novosti VPK*, August 29, 2018, [https://vpk.name/news/226149\\_letayushaya\\_bronya\\_pochemu\\_novyii\\_vertolet\\_dlya\\_vdv\\_nazvali\\_boevoi\\_mashinoy.html](https://vpk.name/news/226149_letayushaya_bronya_pochemu_novyii_vertolet_dlya_vdv_nazvali_boevoi_mashinoy.html).

<sup>213</sup> "VDV mogut perspektivny vertolet k 2026 godu," *Novosti VPK*, August 24, 2018, [https://vpk.name/news/225600\\_vdv\\_mogut\\_poluchit\\_perspektivnyii\\_vertolet\\_k\\_2026\\_godu.html](https://vpk.name/news/225600_vdv_mogut_poluchit_perspektivnyii_vertolet_k_2026_godu.html).

version of the Mi-8AMTSh-VN (Sapsan/Peregrine) will be an interim measure.<sup>214</sup> This model began its flight trials in 2020; and it cannot be excluded that the modernized version of the Mi-8AMTSh-VN is actually the new transport helicopter Russian officials have been referring to.<sup>215</sup>

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<sup>214</sup> Ibid.

<sup>215</sup> Nadezhda Alekseeva and Alona Medvedeva, “‘Mozhnoe oruzhie’: na chto budet sposoben novy vertolet desanta Mi-8AMTSh-VH,” *RT*, July 23, 2020, <https://russian.rt.com/russia/article/766653-mi-8amtsh-vn-vertolyot-rosteh>; “‘Sapsan’ ispytali strelboy,” *Novosti VPK*, December 22, 2020, [https://vpk.name/news/473036\\_sapsan\\_ispytali\\_strelboi.html](https://vpk.name/news/473036_sapsan_ispytali_strelboi.html).

## Concluding Comments and Assessments

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Undoubtedly, the Airborne Troops have undergone considerable development and restructuring in recent years, and the process is apparently not yet concluded. In certain respects—as is true in some key reforms in other parts of the Russian Armed Forces—these changes have resembled a return to the Soviet heritage. Whether these recent developments and reforms are the result of self-interested lobbying by various individuals or factions or rather a realistic view on the use of airborne units in a modern or future combat environment is, of course, debatable. In any case, the announced organizational changes were described by the Russian minister of defense, in 2018, as “not only allow[ing] for an increase to the combat capability of VDV units but also prevent[ing] lagging behind a potential opponent with regard to maneuverability and operational capabilities.”<sup>216</sup>

Seen from a historical perspective, the Allied air-landing operations carried out during World War II—Crete, Normandy and Arnhem—were not particularly successful and brought great losses of both personnel and equipment. However, it is possible that the Russians are drawing on their own experiences in Czechoslovakia and Afghanistan, where air-dropped units contributed to initial success. This legacy likely informs why, in both January and July 2018, the VDV held exercises in which the initial stage of the simulated conflict involved practicing the use of parachutists to take an airfield/airport and then land in reinforcements. These airdrops would presumably create a bridgehead or possibly even favor Russia’s advance on the ground. This mission concept helps explain not only the continued existence of the independent VDV within the Russian Armed Forces, but also this branch of service’s undergoing development with regard to organization, new equipment and its specific mix of parachute and airborne units. To this should be added a new concept employed in connection with Kavkaz 2020—the so-called mobile echelon<sup>217</sup>—based on airmobile units. As opposed to the traditional first and second echelon, the mobile echelon gives the commander greater freedom of action, as airmobile units can be employed more flexibly and, for example, be used for defense in a threatened direction or to engage a retreating adversary.

The combination of new equipment and new units being organized into divisions and brigades will, to a greater degree than previously, turn the VDV into a more versatile force. Though in comparison with the Russian mechanized units, the VDV resembles a kind of light infantry, it will certainly boast increased fire power—for instance, exemplified by the introduction of tank units.

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<sup>216</sup> “V Moskve sosotoyalos zasedanie Kollegii Ministerstvo Oborony Rossii,” *Ministry of Defense of the Russian Federation*, November 28, 2018, [https://function.mil.ru/news\\_page/country/more.htm?id=12205914@egNews](https://function.mil.ru/news_page/country/more.htm?id=12205914@egNews).

<sup>217</sup> Anton Lavrov, Roman Kretsul, “Boy po novym pravilam: chto uvidel prezident na ucheniyakh ‘Kavkaz-2020,’ ” *Izvestia*, September 25, 2020, <https://iz.ru/1065525/anton-lavrov-roman-kretcul/boi-po-novym-pravilam-chto-uvidel-prezident-na-ucheniakh-kavkaz-2020>.

As a consequence of its constant high readiness and ability to deploy rapidly by Military Transport Aviation, the VDV can ensure surprise and be employed early in a conflict. This capability is likely what lay behind the 2013 concept of a rapid-reaction force that would include, besides the VDV, also *spetsnaz* units and, in coastal areas, naval infantry.<sup>218</sup> Since 2015, the rapid-reaction force has rarely been officially mentioned or commented upon; but it does appear to be an established fact, at least judging by what the commander of the VDV said in a speech on February 1, 2019: “As the backbone of the Rapid Reaction Force, the Airborne Troops are ready to carry out any order anywhere on our vast planet.”<sup>219</sup>

The introduction, or return, of helicopter units to the VDV is, in principle, a return to the Soviet model; though it is unclear exactly how many such units will be organized. Another outstanding question is whether the Aerospace Forces will hand over a substantial number of their helicopters to the VDV. Helicopters are also needed to support the Ground Forces, so demand on Russia’s inventory is likely to increase as a result of the organization of airmobile groups in the Southern Military District.<sup>220</sup> In October 2017, the Russian Armed Forces had 340 attack and 374 transport helicopters; so transferring about 50 of these (the number of helicopters in the VDV’s army aviation brigade), from the VKS to the VDV should not be a problem.<sup>221</sup> Of the number of helicopters planned to be delivered in the period 2019–2027, 423, it seems reasonable to assume that some of them will end up in the VDV and its envisaged army aviation brigade.<sup>222</sup> This assessment is supported by the aforementioned announcement about deliveries of the Mi-8AMTSh-VN.

The VDV is expected to comprise five airborne divisions and three to four air-assault brigades by 2025, with most of the divisions presumably expanded with a third regiment. But whether or not it will be possible for the force to meet these goals will depend on the availability of personnel and equipment, namely:

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<sup>218</sup> Vladimir Mukhin, “Bystroe reagirovanie Vladimira Shamanova,” *Nezavisimaya Gazeta*, November 18, 2013, [http://www.ng.ru/armies/2013-11-18/1\\_reagirovanie.html](http://www.ng.ru/armies/2013-11-18/1_reagirovanie.html).

<sup>219</sup> “Komanduyoshchiy VDV vruchil Boevoe znamya novomu komandiru 7-y gvardeyskoy Krasnoznamennoy desantno-shturmovy divisi (gornoy),” *Ministry of Defense of the Russian Federation*, February 1, 2019, <https://structure.mil.ru/structure/forces/airborne/news/more.htm?id=12215419@egNews>.

<sup>220</sup> Stanislav Blokhin, “Rossiya perenimaet taktiku sovetskoy armii: rymynskiy ekspert rasskazal pro effektivnost boevykh aermobilnykh grupp, sozdayushchikhsya v RF,” *Polit Rossiya*, February 19, 2019, [https://politros.com/139238-rossiya-perenimaet-taktiku-sovetskoi-armii-rumynskii-ekspert-rasskazal-pro-effektivnost-boevykh-aeromobilnykh-grupp-sozdayushchikhsya-v-rf?utm\\_source=warfiles.ruio](https://politros.com/139238-rossiya-perenimaet-taktiku-sovetskoi-armii-rumynskii-ekspert-rasskazal-pro-effektivnost-boevykh-aeromobilnykh-grupp-sozdayushchikhsya-v-rf?utm_source=warfiles.ruio).

<sup>221</sup> Svatoslav Petrov, Aleksy Zakvasin, “Podderzhas vozdukha: kak Rossiya usilivaetmoshch vertoletnoy floty,” *RT*, October 28, 2017, <https://russian.rt.com/russia/article/443892-rossiya-vertolety-flot>.

<sup>222</sup> “423 sovremennykh vertoletov pustoyat v VS Rossii dp 2007 goda – Shoygu,” *Regnum*, September 3, 2019, <https://regnum.ru/news/2706918.html>.

- The foreseen force structure implies, at a maximum, about 18 additional airborne and air-assault battalions manned by, at a minimum, around 7,200 soldiers, assuming a personnel strength of about 400 soldiers in a battalion.
- The 18 VDV battalions would require approximately 558 BMD-4Ms and 144 BTR-MDMs, or the corresponding number of older combat vehicles. This process could be completed in around ten years' time if the battalion sets comprise BMD-4Ms BTR-MDM with a delivery of two sets yearly.
- To this should be added other vehicles and equipment and what will be needed to organize the aforementioned new army aviation brigade and artillery brigade.

If this expansion is successfully realized by 2025, the Airborne Troops will truly feature increased firepower, greater air-defense capabilities as well as higher mobility. Of course, based on the history of previous Russian military reform plans that stalled out when confronted with reality, the same could certainly be the case when it comes to the fulfillment of the VDV's rearmament and restructuring—not least considering the ability to recruit the needed contract soldiers. Therefore, it can be assumed that the expansion envisaged by the commander of the VDV will not be implemented in its entirety until well after 2025, and maybe not even until 2030 or so.

From the Russian point of view, the VDV has been and, evidently, continues to be a service of great importance on today's and tomorrow's battlefield. Despite this, there are doubts concerning the utility of airborne forces in general. Those doubts within the Russian context surfaced during the above-mentioned Ogarkov Readings lecture, where, among other expressed points, the presenters suggested that the method of employing the VDV (vertical maneuver) had not been proven or was even exaggerated and, thus, required creative reassessment. Nevertheless, the importance attached to the VDV was explicitly underscored by the fact that 11 airborne/air-assault battalions participated in Russia's annexation of Crimea in 2014.<sup>223</sup>

The Russian Airborne Troops are already a respectable adversary and will become even more so if the development plans to 2025 materialize. All this provides compelling reasons for Western defense experts and policymakers to more closely follow the continued development of this distinctive branch of service.

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<sup>223</sup> Juriy Barash, "Vosdushno-desantnye voyska Rossii: Etap perevoorusheniya. Chast 1," *OPK*, August 6, 2028, <http://opk.com.ua/%D0%B2%D0%BE%D0%B7%D0%B4%D1%83%D1%88%D0%BD%D0%BE-%D0%B4%D0%B5%D1%81%D0%B0%D0%BD%D1%82%D0%BD%D1%8B%D0%B5-%D0%B2%D0%BE%D0%B9%D1%81%D0%BA%D0%B0-%D1%80%D0%BE%D1%81%D1%81%D0%B8%D0%B8-%D1%8D%D1%82%D0%B0/>.

## Author's Biography

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**Jörgen Elfving** is a former Swedish army and general staff officer. During his military career, he mainly served in staff positions handling the Soviet Union/Russia. He has also previously been posted as a assistant military *attaché* to the Baltic States. After retiring from the Swedish Armed Forces, Elfving has worked for a number of Swedish government agencies as a consultant and participated in a research project at the Swedish National Defense University regarding the development of Russia's military capabilities. In addition, he has been active as a translator and written a number of articles about the Russian military for a Swedish and a foreign audience as well as a book about reforms of the Russian Armed Forces.



  
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