

# Russian Efforts to Centralize Drone Units May Degrade Russian Drone Operations

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**Executive summary:** The Russian Ministry of Defense (MoD) launched a coordinated effort in August 2024 to create a centralized separate branch for unmanned systems, likely to reorganize informal specialized drone detachments and centralize procurement of unmanned systems. The Russian MoD is mainly trying to centralize the state's control over Russian drone operators and developers, some of whom had enjoyed relative semi-independence from the Russian military bureaucracy. The Russian MoD is also likely trying to free up more manpower by disbanding informal drone detachments to generate assault troops in order to maintain the offensive tempo in Ukraine. Decentralization and greater degrees of independence have given drone operators on both sides of this war advantages in the extremely rapid evolution of combat techniques and in the offense-defense race between drones and electronic warfare (EW) systems. The Russian MoD's centralization and restructuring efforts may degrade the effectiveness of Russian drone operations and slow the Russian unmanned systems innovation cycle.

**Russian President Vladimir Putin indirectly confirmed the Russian MoD's ongoing effort to establish a separate branch for unmanned systems within the Russian Armed Forces on November 28 – a major inflection in Russia's campaign to centralize control over Russian forces that have developed in ad hoc unofficial and irregular ways since 2022.** Putin vaguely stated on November 28 that the Russian MoD and the General Staff are “considering” establishing a new unmanned systems separate branch within the Russian Armed Forces and identified Russian Defense Minister Andrei Belousov as the lead for this initiative.[1] Putin added that Belousov is a “modern defense minister” who is already working with the Russian military and is planning to organize drone operations into a separate branch. Belousov led several state projects relating to the Russian production of drones and financial support for drone producers and trainers prior to his appointment as defense minister in May 2024.[2] The Russian MoD is reportedly pursuing efforts to form the unmanned systems separate branch that reportedly include the reorganization and integration of existing informal Russian informal drone and specialized detachments into the Russian Armed Forces; registration of new military specialties; and integration of volunteer drone procurement and development projects into the Russian MoD bureaucracy.[3]

Russia currently has three military services (Вид вооружённых сил; *vid vororuzhennyh sil*): the Russian Ground Forces, Aerospace Forces (VKS), and the Navy.[4] The military services are comprised of combat arms branches (Род войск; *rod voysk*) such as tank, missile, engineering, and submarine forces. The Russian Armed Forces also have separate branches that are directly subordinated under the Russian Armed Forces rather than to a service, such as the Russian Airborne Forces (VDV). The separate unmanned systems service will likely hold a similar position in the Russian military hierarchy to separate branches, but the language Russian officials are using makes it difficult to assess its precise position clearly at this time.\*

**The Russian MoD is likely trying to catch up to the establishment of the Ukrainian Unmanned Systems Forces (USF) earlier in 2024.** Putin notably announced Russia’s efforts to establish a new unmanned systems separate branch in his response to a media question on whether Russia should establish a “separate military branch” for drone operators following the example of the recently established USF.[5] Ukrainian President Volodymyr Zelensky ordered the Ukrainian Cabinet of Ministers and General Staff to initiate the establishment of a separate branch within the Ukrainian Armed Forces on February 6, 2024.[6] Ukraine officially established the USF on June 11, 2024, and Ukrainian military officials announced that the new separate branch will become the first in the world to use aerial, surface and underwater naval, and ground-based unmanned and robotic systems in combat missions.[7] Zelensky signed a law on September 16, 2024, granting the USF the status of a separate branch within the Ukrainian Armed Forces.[8] The USF is responsible for interactions with already existing unmanned systems units and with supporting these units.[9] The USF is also responsible for supplying units with drones, training specialists, planning military operations involving unmanned systems, and cooperating with domestic unmanned systems manufacturers. The USF primarily assumed a supporting role for many existing Ukrainian drone detachments without fundamentally altering the structure or operations of those detachments and units or conducting an extensive force restructuring.

**The Russian MoD simultaneously aims to establish the unmanned systems separate branch to centralize control over the Russian informal drone and specialized detachments that have arisen organically in an ad hoc manner within regular Russian units and existing irregular formations.** The Russian drone detachments informally operate within regular units across different services in the Russian Armed Forces and within numerous Russian irregular formations such as Russian private military companies (PMCs) and the Russian Combat Army Reserve (BARS). Russian drone operators closely cooperate with motorized rifle, EW, reconnaissance, signals, engineering, and artillery forces on the battlefield in Ukraine.[10] Russian drone operators organic to tactical units of the regular forces are still responsible for their official duties such as conducting assault operations in infantry groups or performing medical, EW, signals, and sapper functions even as they conduct drone operations.[11] Russian drone detachments are not equally present in all Russian military units; have varying types unmanned systems and other supporting equipment; and largely receive training from different volunteer organizations.[12] Russia has several irregular drone detachments that operate separately or as part of other irregular formations such as the “Borz” battalion for female drone operators, which is formally part of the Russian MoD-controlled Redut PMC outside of the Russian Armed Forces structure.[13] Some Russian separate branches, such as the Russian VDV, are affiliated with separate irregular drone detachments that are at least partly sponsored by Russian private patrons. The Russian BARS-33 volunteer drone detachment (also known as the Margelov Battalion), for example, has ties to the Russian VDV and receives backing from Kherson Oblast occupation officials.[14]

**The Russian MoD at least partly aims to centralize control over informal drone and specialized detachments to free up additional manpower to conduct grinding assaults in Ukraine.** Russian sources claimed that the proliferation of informal drone and specialized detachments created a dynamic in which Russian companies are composed of only 20 assault infantrymen and 70 informal drone operators, signalmen, and evacuation specialists.[15] One Russian milblogger claimed that the Russian MoD may have calculated that in a Russian assault battalion only 100 of the 300 troops can conduct assaults, and the milblogger remarked that this force structure is

incompatible with the Russian military command's focus on "meat grinder" assault tactics - the main tactic Russian forces currently employ to advance in Ukraine.[16] The Russian MoD likely needs the unmanned systems separate branch to establish the criteria for selecting drone operators and other specialists to increase the number of personnel available for assault operations.

**The Russian MoD also seeks to centralize and fully control the procurement, development, and production of unmanned systems – processes that also sprung up in a partly unofficial and decentralized manner.** The Russian MoD likely seeks to integrate and centralize the initiatives of several Russian volunteer and private defense manufacturing firms that have emerged in an ad hoc fashion among Russian ultranationalists in support of individual Russian units by producing, procuring, and developing drones itself.[17] The Russian MoD also likely aims to scale up its drone production to attempt to supply all Russian state-controlled drone and specialized detachments equally with specialized equipment, such as unmanned systems, EW, and signals systems. A Russian drone operator and volunteer noted in February 2024 that the Russian MoD had struggled to scale up rapidly the production of the drones that Russian forces developed on a small scale and in response to frontline realities.[18] The drone operator added that the Russian MoD is slow to respond to the immediate needs of informal drone detachments. Russian drone detachments often receive unmanned systems from military and civilian producers, and the Russian MoD will need to develop a centralized system that promotes cooperation between various manufacturers if it seeks to sustain current levels of supply and innovation.[19]

**The Russian MoD established a new organization – the "Rubikon" Center for Prospective Unmanned Technologies – in August 2024 likely to selectively reorganize and form new MoD-controlled unmanned systems detachments and centralize unmanned systems assets.** The Russian MoD confirmed that it had established the "Rubikon" Center in August 2024 during Belousov's inspection of the center on October 11, 2024, and noted that Belousov ordered the creation of the center on the basis of an unspecified unmanned aircraft unit.[20] The Russian MoD announced that the "Rubikon" Center had formed an unspecified number of unmanned systems detachments that are already operating in the Donetsk, Belgorod, and Kursk directions, indicating that the Russian MoD formed these detachments prior to October 2024.[21] The Russian MoD added that these "Rubikon" detachments are also staffed with engineers, technicians, signals specialists, logistics elements, medics, and reconnaissance and analytical groups in addition to drone operators. Belousov notably ordered the "Rubikon" Center to form five additional unmanned systems detachments to support combat operations in all five Russian groupings of forces in Ukraine. The Russian MoD also specified that the "Rubikon" Center focuses on preparing qualified drone instructors by working with drone specialists selected from active military units and individual drone operators. The center reportedly develops, tests, and integrates advanced robotic systems in the Russian Armed Forces as well as training robotic systems operators and cooperates with the representatives of Russian defense manufacturing firms and tests the firms' developments. The center reportedly has an analytical center, which compiles information on the Russian use of the unmanned systems and tools, analyzes drone footage, and develops proposals to improve the efficiency the unmanned systems use.

**The Russian MoD likely began forming state-controlled unmanned systems detachments under the "Rubikon" initiative by disbanding informal Russian drone detachments and by removing specialists from military units, generating controversy in the Russian information space following the deaths of drone operators and specialists.** The Russian

military command reportedly began increasingly committing drone operators and other specialists such as signalmen, engineers, and medics in assault operations starting in August and September 2024, which resulted in the deaths of several Russian specialists.[22] The Russian information space most notably expressed outrage over the deaths of two prominent drone operators of the 87th Separate Rifle Regiment (1st "Slavic" Motorized Rifle Brigade, 51st Combined Arms Army [CAA], formerly 1st Donetsk People's Republic Army Corps [DNR AC]): Junior Sergeant Dmitry Lysakovskiy (alias Goodwin) and Lieutenant Colonel Sergey Gritsai (alias Ernest) in early September 2024.[23] Ernest and Goodwin were officially snipers within the 87th Separate Rifle Regiment, and reportedly died in combat after a Russian commander disbanded their informal drone detachment and committed them to a frontal assault in the Pokrovsk direction as punishment for criticizing their command.[24] Ernest's and Goodwin's deaths prompted Russian milbloggers to recount instances of other technical specialists dying in assaults between August and November 2024 to which they were committed as punishment or due to manpower shortages.[25] Some milbloggers blamed the incident on the Russian military command's failure to properly select staff and advocated for formal reorganization of Russian specialized units.[26] Belousov reportedly launched an investigation into Ernest's and Goodwin's deaths on September 14, 2024, but reportedly sided with the Russian military command because of the informal nature of the drone detachment and the military command's authority to use informal drone operators to perform their formal roles.[27]

Russian milbloggers notably linked the deaths of drone operators and Russian specialists to the Russian MoD's efforts to form new, centralized Russian drone detachments within "Rubikon" Center.[28] Russian milbloggers recalled on October 2 (prior to the Russian MoD's unveiling of the Rubikon Center) that the Russian MoD was forming a new drone platoon within the 87th Separate Rifle Regiment shortly after the deaths of Ernest and Goodwin.[29] A former Russian Storm Z instructor specified that the Russian military command discussed transferring Ernest's and Goodwin's drone detachment under the command of an unnamed "technical and military methodological center" in August 2024 but that the command of the 87th Separate Rifle Regiment prevented this transfer from taking place.[30] Russian milbloggers implied that the Russian MoD may have begun to disband informal drone detachments to form new "joint technical battalions" to free up more specialists to participate in assault elements.[31] One Russian milblogger speculated that Russian field commanders are committing drone operators and other specialists to sabotage the Russian MoD's efforts to establish a "unmanned systems center" out of fear that the Russian MoD will deplete their units of available manpower.[32] The Russian MoD is reportedly disbanding groups of drone operators, control points, and informal signal units as a matter of first priority in infantry regiments and battalions.[33]

**The Russian MoD's coercive centralization of Russian drone and specialized detachments closely resembles its attempt at formally subordinating the Wagner Group PMC under the Russian MoD's control, which resulted in the destruction of one Russia's most effective and innovative military organizations.** The Kremlin and the Russian MoD sought to assert direct state control over the Wagner Group in late 2022 and early 2023 by imposing bureaucratic and material restrictions on the PMC in an effort to eliminate its increasingly semi-independent operations in Ukraine and due to Wagner Group financier Yevgeny Prigozhin's increasing political threat to Putin's regime and the authority of the Russian MoD.[34] The Russian government notably enacted a law in June 2023 that required all irregular formations (which the Russian

government labeled as “volunteer formations”) to sign formal military contracts with the Russian MoD, effectively requiring irregular formations to officially register themselves as subordinate to the Russian MoD to eliminate their semi-independent structure.[35] The Russian MoD similarly sought to coerce the Wagner Group into direct subordination by reportedly halting supplies of ammunition to the PMC and preventing Wagner Group from recruiting prisoners.[36] The Wagner Group launched an unsuccessful mutiny in June 2023 in response to the Russian MoD’s efforts to centralize the PMC, eventually resulting in the assassination of Wagner’s top leadership and the complete dissolution of the PMC.[37] The Wagner Group had spearheaded the innovations in Russian urban assault tactics and the use of first-person view (FPV) drones, and the state centralization effort has effectively resulted in the destruction of the PMC.[38]

**The Russian MoD is simultaneously monopolizing its control over Russian unmanned systems procurement processes by raising new state-affiliated procurement organizations and restricting Russian non-state volunteer organizations’ operations on the frontlines.** The “Rubikon Center” marks another entry into the recently increasing Russian efforts to centralize control over private defense manufacturing firms and Russian volunteer initiatives. The Russian state-owned Promsvyazbank and the “Nasha Pravda” (“Our Truth”) Foundation, which claims to be a non-profit foundation focusing on supporting “patriotic initiatives,” established the “Center for Unmanned Systems and Technologies” on February 27 and reportedly united over 100 private small- and medium-sized enterprises involved in the development of unmanned systems, for example.[39] The Russian MoD appears to be setting conditions in which small- and medium-sized enterprises work will with the state to produce and deliver unmanned systems, while simultaneously eroding the Russian volunteer-based procurement movement. Russian sources involved in these volunteer procurement efforts observed in late November 2024 that the Russian military command began to impose controversial restrictions on the use of personal vehicles by Russian volunteers delivering military and humanitarian aid to the frontlines.[40] Russian sources reported that the Russian military command threatened volunteers and servicemen with committing them to assault operations if they continued to use personal vehicles that are not registered for military operations in the combat zone.[41] Russian volunteers have been pioneering crowdfunding efforts to provide dual-use drones and other military equipment to select Russian units, and the reported Russian military command’s attempt to dismantle these initiatives is likely part of MoD’s long-term attempts at force and procurement restructuring.

### **Forecast**

**The establishment of the new Russian unmanned systems separate branch will likely require at least six months to a year to complete given the complexity of the required force restructuring and procurement reforms.** The Russian MoD is undertaking a large-scale overhaul of its wartime unmanned systems force and procurement structure that requires rearranging existing units currently committed to the frontlines and defining new bureaucratic, training, and procurement criteria that did not previously exist. Russian military commentators acknowledged that the Russian MoD’s efforts to establish a separate branch are “labor-intensive” and “overly ambitious,” and that it will take the Russian MoD at a minimum six months to a year to establish a new unmanned systems separate branch likely due to the force restructuring requirement.[42] Some Russian sources claimed that the Russian MoD should instead have established unmanned systems branches within existing military services such as the VKS, which would have eliminated the burden of building a new structure from scratch.[43]

**The Russian MoD is unlikely to emulate the USF's structure for its own unmanned systems separate branch given its focus on disbanding and reorganizing existing drone and specialized detachments.** The fundamental difference between the emerging Russian unmanned systems separate branch and the USF is that the Russian MoD seeks to disband existing drone units in an attempt to form state-controlled formal units, whereas the USF has retained some decentralized structures on the frontlines and in the Ukrainian defense industrial base (DIB). USF Commander Colonel Vadym Sukharevsky notably emphasized on June 11, 2024, that the USF would not “take away and drag” existing unmanned units from brigades as such reorganization would be “destructive.”<sup>[44]</sup> The Russian MoD is effectively undertaking a larger and more complex route by choosing to reorganize existing forces and mechanisms into a new entity rather than choosing to form new entities while simultaneously supporting already existing forces and mechanisms. Some Russian commentators even noted that it would have been more “logical” for the Russian MoD to closely follow the example of the USF, claiming that the USF is structured more like a branch than a separate branch.<sup>[45]</sup>

**The Russian forces will gain new capabilities if the Russian MoD is successful in forming new drone and specialized detachments, and centralizing procurement efforts. The success of this effort will depend on the Russian military leadership's commitment to these reforms, prioritization, and availability of supplies. Such success is not a given.** The reforms in theory will help ensure that Russian military units have equal drone capabilities throughout the entire frontline. Successful force restructuring can also help the Russian MoD account for all drone operators and other informal specialists on the frontlines; free up more assault power by eliminating underqualified specialists and reassigning them to infantry roles; clarify the chain of command; and establish formal training and equipment norms for these units.<sup>[46]</sup> The Russian MoD may find it challenging to reorganize these informal technical units, however, since many of them are decisively engaged in ongoing offensive operations necessary to sustain Russia's initiative on the frontlines. The Russian MoD and the Russian military command have a history of under-implemented or neglected force structure reforms due to their institutional resistance to change, and it remains unclear whether Belousov will be able to complete these reforms.<sup>[47]</sup> Other factors, such as systematic corruption within the Russian DIB and backlash from the Russian ultranationalist community that has been supporting informal drone operations, may further impact the implementation of these reforms.<sup>[48]</sup>

**The Russian MoD's reorganization of the Russian drone operators and specialists into separate detachments may impact the Russian tactical reconnaissance strike complex and reduce the cohesion between assault, drone, and artillery elements.** Russian sources criticized the Russian MoD's efforts to form “joint technological battalions,” noting that these efforts will compromise the effectiveness of the Russian tactical reconnaissance strike complex and degrade the effectiveness of the Russian assaults.<sup>[49]</sup> Russian sources were particularly skeptical that the new drone and specialized detachments will have adequate and timely communication with Russian assault, artillery, and reconnaissance units necessary to conduct daily assault operations.<sup>[50]</sup> One Russian source also questioned the organization and cooperation of new drone and specialized detachments

with other services in areas such as planning deep unmanned systems strikes with the VKS.[51] The source added that this new structure can also slow down the command decision-making process, as it may take longer for the commands of the new drone units to coordinate with other forces on the ground than it does when drone operators are already embedded in the military units conducting assaults.[52] Russian sources similarly noted that the unmanned systems separate branch will likely “steal” specialists from other branches and military units, observing that the drone operators will need professional artillery fire coordinators and signalmen to perform their duties while robotic systems operators require support from sappers.[53] The former Russian Storm Z instructor observed that it is unclear how the Russian MoD will select and assess the effectiveness of drone operators and specialists, and whether the Russian MoD will use active specialists within the unmanned systems separate branch.[54]

**The new centralized Russian drone and specialized technological detachments are also unlikely to guarantee that the Russian military command will not use these specialists in assaults due to persistent manpower needs to sustain offensive operations in Ukraine.** Some Russian milbloggers claimed that the restructuring will guarantee that Russian drone operators and specialists would not be committed to assaults, although others expressed skepticisms that the Russian field commanders would honor such a distinction given that commanders have been committing VKS, artillery, and missile elements into infantry assaults.[55] The Russian MoD will need to conduct another partial mobilization or declare a general involuntary reserve call-up to satisfy its manpower needs but appears unlikely to do so at this time due to the Kremlin’s efforts to avoid mobilization out of political considerations. The resulting pressure on unit commanders to find bodies for meat assaults can undermine the effort to protect specialized drone units.

**The “Rubikon” Center and the Russian military command’s prior misunderstanding of evolving technology may also lower standards for Russian unmanned systems training and manufacturing.** The Russian MoD established an unmanned systems training and production center at the base of the “Sudoplatov” Volunteer Battalion in occupied Donetsk Oblast in late 2023, which operated on a smaller scale than the newly established “Rubikon” Center.[56] The Russian MoD claimed that the center trained around 300 drone operators as of November 2023 and carried out small-scale frontline drone production. Russian servicemen later revealed in April 2024 that the “Sudoplatov” initiative was reportedly equipping Russian military personnel with cheap and defective FPV drones and offering “primitive” training in the Bakhmut direction.[57] The “Sudoplatov” drones reportedly operate on only a single frequency, which makes them vulnerable to Ukrainian EW systems. Russian servicemen reportedly accused Russian manufacturers of using cheap components to produce Sudoplatov drones, resulting in many defects and causing nearly one third of drones simply to fall to the ground after launch. The former Russian Storm Z instructor assessed in April 2024 that the Russian military command has developed several misunderstandings about drone operations, resulting in the command ordering drone operators to carry out impractical tasks.[58] It is unclear if similar problems will emerge under Belousov’s leadership, given that most of these reports emerged prior to his appointment as the defense minister in May 2024. Centralized procurement mechanisms can also prevent individual Russian military units from asking for specific types of unmanned systems that fit their battlefield realities.

**The Russian MoD’s efforts to monopolize the procurement and supply of Russian unmanned systems to Russian drone and specialized detachment may erode a**

**competitive and flexible environment conducive to innovation.** The former Russian Storm Z instructor and milblogger warned against the establishment of a formally defined line of products and full monopolization of the unmanned systems production and noted that it is unclear if the new unmanned systems separate branch will adopt the concept of end-to-end technology.[59] End-to-end technology refers to versatile technological innovations such as drones that are not exclusively related to a specific area or products and can be used in a variety of different ways.[60] The concern highlights the risk that the Russian MoD may impose stricter limitations on how certain drones are used and effectively degrade the versatility of these systems. The Russian MoD’s monopolization efforts may also hinder frontline innovations that are occurring naturally in certain military units that are adapting to specific battlefield conditions and slow down the Russian adaptation-development cycle.[61] The Russian VDV notably has been leading the charge on unmanned systems innovation since the demise of the Wagner Group, a natural development given the VDV’s legacy of being the most experimental and innovative separate branch in the Russian Armed Forces.[62] Russian unmanned systems innovation will likely suffer if it is pulled away from the VDV. One Russian source added that it is unlikely that the establishment of the new unmanned systems separate branch will seriously improve Russian drone production as the private drone developers and enterprises are already working at capacity.[63]

**The establishment of limitations on non-state volunteer procurement and supply efforts may significantly degrade or eliminate this community.** Russian sources complained that the order banning volunteers and servicemen from using their personal vehicles will severely impact the community of Russian volunteers that evacuate troops and deliver military and humanitarian supplies to the frontline, and warned that the Russian MoD efforts to centralize humanitarian aid deliveries to Russian servicemen will result in supply and provision shortages among frontline units.[64]

**The Russian MoD’s initiative to establish the unmanned systems separate branch, reorganize its informal drone forces, and centralize procurement efforts should not be dismissed, as Russia may resolve many of the problems forecasted in this publication in the long-term. Russia’s manpower constraints, manufacturing limitations, and the Russian command’s prioritization of maintaining the battlefield initiative are complicating these efforts, however. Empowering Ukrainian forces to contest the initiative and impose dilemmas on Russia will continue to protract, slow down, and complicate Russian efforts at force restructuring and formal adaptation of unmanned systems into the Russian Armed Forces. ISW will continue to closely track the Russian MoD’s force centralization and force restructuring efforts to establish both the unmanned systems separate branch and the “Rubikon” Center.**

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\* Russian military nomenclature distinguishing between services and branches is somewhat different from US and NATO terminology and makes precision in translation difficult. The US military



distinguishes clearly between services, which report directly to the Secretary of Defense and generally have their own service chiefs who sit on the Joint Chiefs of Staff, and branches, which are component parts of services. The Russians have a similar structure in principle, with military services (вид; *vid*) and branches (род), but the Russian Armed Forces also include “separate branches” (отдельный род; *otdelnyi rod*) that report directly to the Russian Armed Forces and so, in the US system, would more properly be referred to as services. Putin referred to the new unmanned systems as a “separate branch” (отдельный род), and the nomenclature he used is more likely accurate than that of other commentators and officials who have referred to it as a “service” (вид). The likely structure and purpose of an independent unmanned systems organization is more similar to that of the Russian Airborne Troops (a “separate branch”) than to the Russian Ground Forces or Russian Navy (“services”). The distinction is of limited significance in reality, however, as “separate branches” are as independent of the ground forces as “services,” and the creation of an Unmanned Systems Separate Branch would remove drone units from the direct control of Russian Ground Forces commanders as much as would the establishment of an Unmanned Systems Service.

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