Russian Lessons from the Syrian Operation and the Culture of Military Innovation

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Executive Summary

- The Russian operation in Syria, which started in 2015, has become a main reference for understanding the changing character of war, and one of the main drivers transforming Russian military theory, concepts of operations, organizational structures, and force build-up.
- Russian lessons pertaining to the changing character of war and implications for the theory of victory fall into three categories: new type of warfare, new type of enemy, and the main implications for operational art.
- The notions of “Reconnaissance Strike Complex/Contour” - a combined arms system of systems which links together intelligence, surveillance, and reconnaissance capabilities, command and control, and precision standoff fires - have become a recurrent theme in Russian force build-up. Most military modernization efforts have been grouped around refining the intelligence, command and control, and fire capabilities of the reconnaissance strike complex.
- The Syrian campaign has offered an unprecedented experience in conducting an expeditionary operation. The lessons learned from this experience have given light to a novel concept—the “strategy of limited action.” This strategy is an evolution of the sort of long-range power projection operations by a limited but self-sufficient grouping of combined arms forces.

Introduction

This paper explores Russian lessons learned from the Syrian operation. The paper has two goals: (1) to highlight how this learning process informs the current Russian military transformation, and (2) to illustrate the Russian culture of military innovations. The subjects are interrelated: The operation in Syria became a point of reference for conceptualizing the changing character of war, and one of the main drivers of Russian military transformation. Lessons learned inform the development of military theory and transform concepts of operations, organizational structures, force build-up, and the professional conduct of the Russian military. These transformations highlight the Russian culture of military innovation.
Before, during, and following the Syrian operation, which started in 2015, the Russian strategic community has been conceptually-intellectually in the most dynamic shape of the post-Soviet era. The community has exhibited a recurring pattern of innovation. First, the community’s theoretical discussions explore a variety of doctrinal ideas related to the changing character of war; military exercises then refine these theoretical insights and introduce them into practice. These ideas then receive a reality check in actual military operations. Finally, the lesson-learning process during and following the Syrian operation takes the concepts from the experience and injects them into the theoretical debate, which furthers the cycle of learning and transformation.¹ This paper highlights the main insights generated by this process.

The paper argues that the insights that this lessons-learned process has produced could be categorized in three ways: (1) conceptualization of new forms of warfare and features of operational art, (2) force modernization around the reconnaissance-strike complex, and (3) the emerging concept of operations known as “the strategy of limited actions.” The paper elaborates on these main insights within each of these categories and then offers the summarizing remarks in its conclusion. Russian lessons about the changing character of war and the implications for the theory of victory in future wars largely fall into three categories: “new generation warfare,” enemy of the new formation, and implications for operational art.

**Conceptualizing the Current Character of War**

The Syrian operation has enabled Russian practitioners to further refine a notion of new generation warfare (NGW)—a set of ideas about the changing character of war that had been circulating in the Russian strategic community (under the current chief of the general staff) for several years prior to the start of the operation. NGW minimizes the role of the large-scale military operations of the industrial war era and instead combines hard and soft power across military and nonmilitary domains. It capitalizes on indirect action, informational operations, paramilitaries, and special operations forces backed by sophisticated military capabilities, both conventional and nuclear.² For experts in Russia, the Syrian operation is probably the most illustrative demonstration of a war waged on the principles of the NGW.³ The unity of simultaneous and mutually reinforcing efforts—political, military, diplomatic and informational, rather than sequence of these efforts, as usually prescribed by Western military thought—ensured, according to Moscow, the desired outcome of the operation. The political process (both

¹ For example see: V. V. Gerasimov, “Razvitie Voennoi Strategii v Sovremennykh Usoviakh,” *Vestnik AVN*, No. 2, 2019, pp. 6–11.


in Syria and outside), military operations and what lies between them (in the form of reconciliation centers arranging ceasefire agreements with local field commanders and village heads) were interwoven in one integrated operation.

According to the Russian political-military leadership, in Syria, Moscow dealt with a serious operational challenge, an *enemy of the new formation*: a well-organized, effectively trained, and adequately equipped terrorist army. The Russian military brass saw it not as a terrorist group, but as an irregular-regular military armed with modern weapons, and comparable with state militaries. In terms of the employed resources and ability to generate operational effects, Moscow saw this adversary better than militaries of some medium-level powers. Occasionally, Russian experts categorized this new type of enemy as *hybrid*, which they defined the same way the Israeli military does: a non-state actor armed with state military capabilities, waging warfare along the lines of guerrilla principles and driven by the logic of terrorism. Indeed, Moscow’s adversaries were equipped with armor; artillery; communication, reconnaissance and target acquisition capabilities, including electronic warfare; and intelligence and strike unmanned aerial vehicles (UAVs). This arsenal and concept of operations enabled the adversary, according to Moscow, to conduct both maneuverable and static ground warfare of both high and low intensity in urban, desert, and mountain areas, while the terrorist logic of using the civilian population as shields or as targets significantly multiplied its combat effectiveness.

Russian experts emphasized the enemy of the new formation’s ability to rapidly switch back and forth from guerilla and terrorist tactics to those of state militaries, its adaptability to the rapidly changing situation, its aptitude for innovation, and its ability to develop new operational knowledge and disseminate it horizontally. In the Russian view, this type of adversary emphasizes rapidness, surprise, moral-psychological demoralization, and physical exhaustion of the enemy forces, putting the enemy constantly on the defensive through systematic attrition. As

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long as strategic deterrence preserves military clashes below a great-power direct conventional collision, apparently, Russian military leadership expects this type of adversary to become a prototype actor on the prospective battlefields of the new generation warfare, and has designed its countermeasures and theory of victory accordingly.

Main Features of Operational Art

The operation in Syria has become a main point of reference for new forms of operational art. So far, several of its aspects loom large in Russian professional discourse. First is a demand from military commanders to develop capacity to design, plan, and wage operations while merging traditional forms of warfare with asymmetrical methods of war. Modern militaries have a general tendency to act with plausible deniability through clandestine, “evidenceless actions” (bezulikovye dejstviia) while employing nonstate proxies or private military contractors for the purpose of achieving political goals.

Secondly, contemporary warfare is characterized by “operational simultaneity,” and it demands decentralized, network-centric management (setevye skhemy upravleniia). According to Russian experts, because the adversary is engaged concurrently in several phases of a classical military campaign, the traditional sequence of times - first, military effort and then translation of it into diplomatic effects – is not applicable anymore. Thus, network-centric management is more effective than the hierarchal variety.

Finally, Russian military leadership has emphasized the importance of combining enemy-centric and population-centric activities. The leadership sees the merging of combat, humanitarian, and reconciliation activities as necessary for success. According to them, the integrated military-social-political infrastructure on the theater of operations makes strategic achievements possible. This approach is likely to become a prototype of prospective Russian operations.

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7 For example, see V.V. Selivanov, “O Kompleksirovanii sredstv I sposobov podgotovki asimmetrichnukh otvetov;” VM, No. 1, January 2020; S. Shoigu in M. Shepovalenko, ed., Sirijskij Rubezh (Moscow: CAST, 2016), p. 5.
9 Bartosh, 2018; Chekov et al., 2019.
11 Gavrilenko, Tikhonov, and Biriulin, 2017; A Center for Reconciliation of Belligerent Sides was a main tool to this end and became an integral element of the C2 architecture. The overall design and the Command Post of the Grouping of Forces in Syria manifested the dictum of merging military and nonmilitary activities—it enabled not only effective combat control of the Russian forces and their coordination with other armed segments of the coalition, but also allowed for synchronization of these activities with all social-political-diplomatic efforts and uninterrupted political control over the military operation. V. Baranets, “Nachal’nik Genshtaba Vooruzhennykh sil Rossii general armii Valerij Gerasimov,” Komsomol’ skaia Pravda; M. Shepovalenko, Sirijskij Rubezh (Moscow: CAST, 2016), pp. 181–183.
Reconnaissance Strike Complex:  
A Recurrent Theme in Russian Force Build-Up

Russian commentators have said that the Syrian operation is the first occasion during which a Russian military fought using the Information Technology Revolution in Military Affairs (IT-RMA), a combined arms system of systems which links together intelligence, surveillance, and reconnaissance capabilities (ISR), command and control (C2), and precision standoff fires. The Russian lexicon defines this phenomenon at the strategic-operational level as a reconnaissance strike, and, at the operational-tactical level, as reconnaissance-fire complexes or contours (RFC and RSC). Flaws in the Russian military, which had been highlighted during the war in Georgia, were addressed by the use of IT-RMA: the deficit of precision-guided munitions (PGMs); an inability to wage network-centric warfare (NCW) due to the low level of command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR); and low capacity to wage combined-arms warfare. The aim of the Russian reforms since then has been to rebuild the conventional military and to advance it toward the ideal type of RSC. The General Staff saw the operation in Syria as a testing ground for refining its ability to integrate the ISR, C2, and fire systems.

As Russia continues to enter a precision regime, the main challenge for reforming ISR has been providing targets for accurate fires. Most of the lessons related to ISR have focused on how the Command of Special Operation Forces (KSO), the UAV fleet, and Global Navigation Satellite System (GLONASS) constellation generate a bank of prepared and real-time targets. All branches involved in the operation have employed an unprecedented (in terms of types and numbers) fleet of reconnaissance, strike, and radio-electronic suppression UAVs. The Russian high command envisions the UAVs as an integral part of all future combat activities for all services. The GLONASS constellation supported the feeding of targets to sea, air, and ground-precision systems, and improved the accuracy of the strikes with unguided munitions. Russian experts demonstrated an awareness of the system’s limitations and have recommended that the Russian military leadership prioritize further refinement. The biggest obstacle in Syria was the ability to rapidly close sensor-to-shooter loops and hit small, maneuvering targets in longer ranges while decreasing the scale of indiscriminate bombings. Future modernization in the ISR realm is likely to set its sights on these tasks.

The C2 architecture during the Syria operation consisted of three layers: the highest-level operator was the Group of Combat Management within the National Defense Management Center (NTsUO) in Moscow; the Command Post of the Grouping of Forces in Khmeimim, the

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18 For NTsUO, see A. Golts, *Military Reform and Militarism in Russia* (Uppsala: Uppsala University, 2017), pp. 184–185; Baranets, 2017; Ministry of Defense of the Russian Federation, “Doklad pervogo zamestitelia MO RF...”
Russian air base in Syria, was the second layer; and Operational Groups of Advisors in all the tactical-operational directions was the lowest -level operator. This architecture aimed to tailor procedures from the strategic to the tactical-operational levels across diplomatic, military, and humanitarian domains, and to maintain constant situational awareness. It enabled rapid decision-making and decision execution, adaptation to the changing trends, orchestration of the activities according to a unified operational plot, and uninterrupted control from high command. Combat management of troops on the tactical-operational level rested on a unified mobile field C2 system, enabling automatic collection and analysis of the information, a constant intelligence and operational data flow, a better battle damage assessment, combat planning, fire management, and logistical-rear support.19 According to Russian commentators, this unified tactical-level C2 system reduced the time needed for organizing combat activity and accelerated the combat management tempo between 20 and 30 percent. Given the favorable assessment of its modus operandi, this C2 architecture and the automated systems supporting it are likely to be preserved in future practice and procurement programs.20

In terms of fires, although the proportion of the Russian PGMs used in Syria was probably less than five percent,21 the General Staff saw it as an entrance of the Russian military to the precision regime club.22 Its C4ISR systems, in the Russian view, multiplied the utility of nonadvanced unguided munitions,23 and made their effectiveness comparable with that of the precision strikes.24 The intent to wage modern warfare using forces that function as mobile and self-sufficient RF and RS complexes has been the main takeaway from the Syria operation; it is likely to inform future exercises and weapons modernization programs.25 According to the Russian military leadership, the rearmament program should aim to produce self-sufficient groupings of forces equipped with sea-, air-, and land-based precision, standoff, C4ISR, and

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20 Gavrilenko, Tikhonov, and Biruilin, 2017.
21 Kofman and Rojansky, 2018.
REB capabilities in strategically important theaters. Promotion of robotics; digitization and intellectualization of the battlefield fire control, which Moscow sees as a force multiplier, are other takeaways informing procurement plans. Presumably, the State Armaments Program pays special attention to the quality and quantity of the PGM arsenal and the C4ISR systems supporting it, including UAVs and satellites, as its main enablers in all the branches, using the lessons it learned from Syria. This emphasis is second only to modernization of the nuclear triad.

**Strategy of Limited Actions**

The Syrian campaign offered the Russian military an unprecedented experience in conducting a long-distance, intensive, continuous expeditionary operation. Lessons in this regard have stimulated and informed a novel concept—the strategy of limited action. Announced in 2019, the concept is a Russian variation on the theme of long-range power projection operations by a limited but self-sufficient grouping of combined arms forces, which are based on a specific service, the most relevant for a given operational context (the Aerospace Force (VKS), in the case of Syria). Strategy of limited action relates to long-range maneuver by forces and by fires, and is likely to guide future Russian expeditionary operations, at least in theory, that are tailored according to the “reasonable sufficiency” principle. Reasonable sufficiency relates to the golden range between overshooting and undershooting, and in Syria, specifically, to limiting the scale of military intervention to the minimum possible that would still allow Russia to project regional influence. This quest to ensure the right balance between using too little and too much strategic energy, resonates with the NGW, and was helpful in preventing Moscow from crossing the culminating point—the moment after which additional application of forces becomes counterproductive and brings diminishing returns. It should be noted that the quest for reasonable sufficiency occurred not only by design but was also a default option due to Moscow’s objective weaknesses, constraints, and limitations in the fields of logistics, supply and maintenance, power-projection capacity, expeditionary warfare, and coalition fighting experience. Moscow, however, stuck to this principle even when the correlation of forces began playing in its favor and when it solidified its combat-logistical stronghold in Syria. Presumably, the same principle is more likely than not to inform the prospective “strategy of limited action.”

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28 “Genshtab: osobennost’iu konfliktov budushchego stanet primenenie robotov i kosmicheskikh sredstv,” TASS, 24 March 2018
33 Although the term originated in Soviet strategic thought during the late Cold War and was unrelated to the Middle East, it illustrates accurately the current Kremlin’s approach to strategy, in Syria in particular (Adamsky, 2018). Also see: Dara Massicot, “Anticipating A New Russian Military Doctrine in 2020,” *War on the Rocks*, September 9,
One of the main enablers of this emerging concept is the reform in the system of material-technical support, which has also laid the ground for the rapid and discrete dispatch of the expeditionary force to Syria, and for sustaining stable lines of maritime and aerial provision of armaments, spare parts, and supplies, which in its turn ensured the uninterrupted combat activities and operational success. Since 2016, the annual strategic exercises and snap inspections further refined speed and effectiveness in transportation, supply, repair, and technological maintenance. All of these exercises tested the ability to project a large combined-arms expeditionary force to a faraway theater of operations and deploy it as a self-sufficient grouping of forces. The implementation of some lessons enabling the concept of strategy of limited actions is already evident. The prioritization of strategic mobility in various theaters of operation and rapid deployment is likely to remain intact. Presumably, the new version of the Russian military doctrine, expected in 2020, will elaborate on this concept.

**Conclusion**

The Russian General Staff turned its Syria operation into an incubator of learning, training, and innovation. It explored combat experience, disseminated the acquired insights, and embarked on wartime adaptation, at which point the lessons learned led to the adjustment of the concept of operations, organizational structures, and force buildup. Moscow sought to provide experience in combined arms warfare, interservice cooperation, and complex employment of intelligence, C2, and fire destruction means, with the maximum number of commanders from all armed services rotating in three-month deployments. The Ministry of Defense dispatched engineers and scientists from the design bureaus, scientific institutes, and industry to accompany their products and to calibrate them technologically and conceptually based on the hands-on combat experience. During the Syria operation, Moscow demonstrated an aptitude for learning, innovativeness, and scale of improvisation that some commentators see as rather unorthodox for the Russian military, and which stands out at the backdrop of conceptual stagnation of the first post-Soviet decades. However, it would be an overstatement to qualify Moscow’s approach to innovation, its military theory development and style of defense transformation manifested during the operation as something fundamentally novel and revolutionary. If one judges the current Russian military innovation and defense transformations towards, during and following operation by the yardstick...
of strategic culture, these novelties represent continuity rather than change in the Russian strategic mentality and military tradition.\textsuperscript{39} One may argue however, that under the current regime, material-organizational conditions became ripe again within Russian strategic community for traditional Russian culture of military innovation to manifest itself in action.

The actual effectiveness of Russian endeavors will be clear only retrospectively. However, as of this writing, Moscow already demonstrates capacity to simultaneously fight, learn and embark on military transformation – an infrequent virtue and a challenging professional task, which during the last decades have been dealing with, in the compatible magnitude, only the U.S. military, the Israeli Defense Forces, and few leading European militaries.

\textsuperscript{39} Dmitri Adamsky, \textit{The Culture of Military Innovation} (Stanford: Stanford University Press, 2010).
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Russia Strategic Initiative (RSI): This program of research, led by the GCMC and funded by RSI (U.S. Department of Defense effort to enhance understanding of the Russian way of war in order to inform strategy and planning), employs in-depth case studies to better understand Russian strategic behavior in order to mitigate miscalculation in relations.

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