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# Russian Forecasts of Future War

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**Author: Timothy Thomas**

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# RUSSIAN FORECASTS OF FUTURE WAR

**Timothy Thomas**
**November 2018**

## Introduction

Strategists world-wide study both the causes of past conflicts and new warfare trends to help forecast and prepare for new ones. Forecasting the shape of future wars helps determine what capabilities nations require to thwart potential opponents and what issues to include in budget requests. Examining the future war scenarios of other nations obviously can lead to better domestic planning as well. Russian analysts are no exception to such studies. In fact, Russian theorists constantly pursue an understanding of how war might evolve and unfold.

Russia's forecasting process appears dependent on two inputs. The first is the direction that President Vladimir Putin provides to Defense Minister Sergey Shoygu and General Staff Chief Valery Gerasimov, much like President Donald Trump discusses issues (for example, the development of a space force) with Defense Secretary James Mattis. Putin offers his points of emphasis to pursue, which are influenced by defense and civilian specialist inputs, resource protection measures, national interests, and science and technology discoveries. Putin's suspicious mind-set, which envisions potential threats to Russia everywhere, also influences his directions to the Defense Ministry. Putin's strategic assessments change and are often updated in relation to the ever-evolving geopolitical situation. He especially focuses on border issues, where national interests and resources are at stake. For example, the Kremlin became involved in a late 2018 conflict with Ukraine over the latter's shipping access to the Sea of Azov, purportedly due to a violation of Russia's border which Ukraine contends.

After incorporating Putin's concepts, future war planners input contemporary trends (scientific discoveries, etc.) into their analysis which lead to specific predictions (forecasts) as to how a future war might unfold and what its contents might be. These forecasts are further shaped by the logic of the situational context at hand, such as geopolitical conditions or resource exploitation potential. New forms (organizations, type of operations) and methods (new weaponry and military art) of fighting future conflicts are then considered and chosen, to include a determination of the type of force correlations required to win future war battles.

Forecasting is the key to future war planning because it results in the most likely scenarios future war might take while attempting to avoid the "paths that lead nowhere" and accepting those that "help avoid errors."[1] This requires that Russia update its forecasting predictions on a regular basis to contend with the pace of scientific and other developments. Staying current helps define ways that cyber or information technology developments, such as the creation of directed energy, precision-guided weapons, and ecological or infrasonic weapons, affect future plans.

Of increasing relevance to forecasting are what Russian officers have long referred to as the initial period of war (IPW). To properly prepare for the evolving IPW environment, operational adjustments are required in peacetime. As one prominent Russian officer, General of the Army Makhmut Gareyev, noted, if conflict is imminent, previously formulated scenarios and models of combat operations will have to be implemented due to the speed and mobility of contemporary operations.[2] Planning tomorrow for a surprise development today is more than a day late, as the contemporary information environment's impact on the

IPW may even result in the conflict's end before it starts, if enough capabilities/resources are destroyed or compromised.

Since Putin's subjective input can only be surmised, this article will focus on the military's more objective and openly expressed approach to future war planning. It first examines forecasting theory and how it assists planners in their future war preparations, to include a consideration of how Russia views the shape of the contemporary IPW. It then considers the thoughts of several analysts, to include the Chief of the General Staff, as to future war's components and how it might be conducted.

**Some Views of Russian Forecasters**

Forecasting has been a part of Russian military thought for decades. In a 1975 work on the topic of forecasting the term was defined in the following way:

> The study of the military-political situation, the pattern of war in the future, the prospects of developing strategy, operational art, and tactics, the qualitative and quantitative composition of the means of armed conflict (one's own and the enemy's), the prospects for the development of the potential of the war economy in the future, and the forecasting of the enemy's strategic and tactical plans.[3]

Contemporary authors have updated the concept, but only in minor ways. Major General (Res.) V. V. Kruglov, who wrote on forecasting and future war in 1998, 2016, and 2017, noted in 2016 that forecasting prepares the state for the most unexpected vectors of development, predicts global changes for the next 20-30 years, and estimates threats to the country 30-50 years out. Kruglov noted that President Vladimir Putin has requested work on a new, qualitatively different "smart" system of military analysis and planning. Weapon types, the nature of warfare, and better predictions of developments in the military, political, and strategic situations are required.[4]

Kruglov added that developing an armed struggle matrix for forecasters is difficult. The weapons, forms and methods of employing formations, the theater's specific characteristics, and other issues change often. As technological and intellectual standards change, so does the nature of wars and future armed struggles.[5] He recommended that forecasts and assessments be made every three to six months.[6]

In 2017, Kruglov and LTC V. I. Yakupov offered several important points to consider about forecasting's increased importance. They stated:

> The reason is armed struggle is steadily getting more complex, there is synergy between military and nonmilitary confrontation means, and lots of other factors. There are new spheres (continuums) of military confrontation: information-communication, consciental (psychological), and cognitive (area of thinking). Before long new types of weapons will appear and, therefore, also new spheres of struggle (that are not much in evidence or are only forecasted).[7]

The authors ruled out a large-scale war but noted that forecast-based risks may entice confrontations to occur. However, starting such a conflict without a foregone conclusion of success is dangerous. Surefire forecasts are mandated, requiring a solid knowledge of forecasting theory and methodological skills.[8]

The authors explained that an objective difficulty of forecasting is simply the uneven progress of knowledge. It is difficult to forecast which countries will make what discoveries and what their impact will be on their military forces. Further, the active and covert use of nonmilitary means are extremely difficult to "analyze, consider, and formalize, and this makes even more complex the process of forecasting armed struggle and interstate confrontation."[9] Not mentioned by these forecasters are the expected changes to be wrought by quantum computing, artificial intelligence, and other discoveries, which may double forecasting difficulties.

Forecasting the use of new weaponry with covert (cyber) or surprise characteristics has forced Russian analysts to focus on the growing importance of the IPW. Those nations who gain the initiative in the IPW due to scenarios that are preplanned will be more likely to attain initial success that could even lead to the quick subjugation of an opponent. Most likely Russia's IPW focus is a direct result of the Soviet experience in WWII when the nation was not properly prepared to go to war with Germany and experienced early setbacks. Now, in the age of cyber, information superiority has become crucial to success in the IPW. Russia must begin shaping the information environment (and geopolitical one) to its advantage in peacetime. Efforts can include planting cyber viruses in important systems of an opponent's infrastructure, capturing the electronic warfare frequencies and equipment operating parameters of a potential opponents' equipment, scrambling global positioning system frequencies, or conducting reconnaissance on key underwater cables for espionage or destruction purposes.[10] Diplomatic, economic, and other environments are also potential targets of manipulation to enable victory in the IPW.

Russia's military often discusses the IPW. For example, a 2012 *Military Thought* discussion defined the IPW as operations conducted before the start of war to achieve objectives or to create favorable conditions for committing their main forces.[11] Outer space, information warfare, and new weapon capabilities were said to help create conditions favorable for the IPW. More importantly "In all likelihood, the aggressor country is to be expected, still in peacetime, to launch a wide-scale targeted information operation and intense reconnaissance activities, including a set of related and closely coordinated actions."[12] Thus, if an opponent is expected to perform in such a manner, Russia must either counter these actions or, more likely, take the initiative themselves to achieve control in the IPW. The IPW, the authors note, will include the launching of information operations, which include technical and psychological attacks, along with electronic operations and fire strikes to disorganize government systems, demoralize populations, and prevent leaders from rallying forces to repel aggression.[13] The attainment of information superiority and the use of the mass media will stir up chaos and confusion in an adversary's government and military management and control systems.[14]

In 2015 two authors wrote that a contemporary military goal is to put an adversary on the verge of defeat at the beginning of hostilities, accomplished by wreaking havoc on its political and economic situation using IT-generated psychological and other types of warfare; and by disabling the adversaries control of the country and armed forces through attacks on strategic installations and infrastructure. The ability to manipulate public opinion and utilize the benefits of nonlethal weapons is also under study.[15]

Perhaps due to concern for the US's cyber security in the IPW, the US Federal Bureau of Investigation (and earlier, the government of Ukraine) decided to no longer allow the sale of the Russian-produced Kaspersky anti-virus solutions, a product sold in stores and advertised on prominent radio stations. Such products may have offered the ability to insert a virus or logic bomb into a critical information domain that would ensure Russia would have information superiority in an IPW. A recent *Wall Street Journal* article noted that the Kaspersky anti-virus has been on a Defense Department watch list of potential problems since 2004. In 2013 the Defense Intelligence Agency issued a Pentagon-wide

threat assessment about the company. US officials note that the firm's products were used as a tool for spying on systems in the US.[16]

**Contemplating Future War**

After considering the trends in military affairs and how an adversary might use force or the manipulation of context in the IPW, theorists then contemplate how future war might unfold. The following summary from 2012-2018 of future war thought by several Russian military officers and civilians offers significant insights into future war's conduct.

In 2012 G. A. Naletov, writing in the *Journal of the Academy of Military Science*, examined future war's impact on the development of new forms and methods of warfare.[17] Naletov stated that outwardly the forms of military operations have changed little, and include war, armed conflict, operations, strikes, engagements, battles, and combat operations, while their content has changed significantly. Armed struggle is qualitatively different regarding weaponry and methods of their employment. He listed fire-strike, electronic-strike, robotized, aerospace, air-mobile, air-assault, information-reconnaissance-strike, counter-reconnaissance operations, and other actions as some of them.[18]

Naletov observed that combat and noncombat forms of actions are converging; that defensive operations will be more dynamic in terms of maneuver retaliatory-meeting strikes or preemptive strikes; and that future operations will consist of indirect, noncontact, and actively preemptive effects.[19] He stated that it is time to "broaden the arsenal of resources" for conducting armed struggle, to include weapons based on new physical principles (NPP). They will include geophysical, infrasonic, climate, laser, ozone, radiological, accelerator (beam), electromagnetic, directed energy (beam super-precision), nonlethal (against personnel: psychotropic preparations, infrasonic weapons; and against materiel: electromagnetic weapons, resources for radio-electronic suppression and physical effects against computers, biotechnical and chemical resources that corrupt products), and genetic, ethnic, acoustic, and radio-frequency weapons. Speed of decision-making, tempo, and conflict intensity will increase, while temporal parameters (time to accomplish missions) decrease.[20] Operational speed and intensity will not give an enemy time to organize countermeasures. The space domain will increase in importance and the nuclear domain will find its burden somewhat decreased. These, Naletov wrote, "are the principal opinions about the development of new forms and methods of conducting future armed struggle."[21]

Authors P. A. Doulnev and V. I. Orlyansky, writing a few years later in the same journal, also noted space's growing importance. Space-based weaponry or military malware used for the first time capitalize on surprise and fully implement other principles of operational art. A critical goal will be to attain space superiority in future wars. The authors stated:

> Therefore, already in the nearest future we can expect the emergence of new forms of military operations in near space—space operations (military actions) aiming to defeat orbital alignments of forces, suppress radio communication systems in space, block orbital alignments of forces and means in specific areas of space, etc.[22]

In 2013 Russia's *Army Journal* published an article that General-Major Vladimir Slipchenko had apparently written before his death a few years prior. It was odd that the article hadn't appeared earlier, as he was one of Russia's most popular military authors in the preceding two decades. Slipchenko wrote that superiority over an opponent was only possible after superiority in information, mobility, and rapidity of reaction were assured. Precise fire and information effects against economic structures and military

objectives were required. Slipchenko referred to this as noncontact war. In such war, information confrontations will be continuous and will leave the operational and strategic levels and acquire a planetary scale.[23]

Information confrontation's principal goal is the maintenance of one's own information security and the lowering of a potential enemy's.[24] Recce-strike combat systems will be used extensively to detect and deliver strikes against various target types. This will, from Slipchenko's point of view, radically change the content and nature of warfare, since:

> It will not be masses of forces, but rather recce-strike and defensive combat systems that will clash in such noncontact warfare. Their potentials are characterized not by the quantitative and qualitative superiority of one of the sides, but rather by structural and organizational factors, the uniformity and effectiveness of command and control, and the functional quality of communications and guidance systems and other links in the all-round support of military operations.[25]

He may be the only Russian analyst to stress the importance of structure and organization over quantity and quality.

Also in 2013, General-Lieutenant Victor Vinogradov stated his assumptions as to how war may unfold in the future. The IPW will have a distinctive flavor of surprise and may include the use of weapons based on NPP, tilting war quickly toward the use of weapons of mass destruction.[26] Offense and defense will share the following distinctions:

- The growing role of the first electronic and fire strike;
- Resolve in achieving the goals of an operation;
- Dynamic and maneuverable style of combat;
- A greater role for highly effective strikes;
- Tense fighting to seize and hold the initiative;
- Sudden changes in the situation and tactics;
- A broader spread of simultaneous combat operations;
- And the rising role and significance of protection.[27]

Finally, in a nod toward military art, Vinogradov stated that the course and outcome of operations will be affected by a potential adversary's view on the ways that advanced weapons and operations will be used.[28]

In 2015 S. G. Chekinov and S. A. Bogdanov, two of the most popular Russian military authors with wide-ranging expertise (having written on indirect war, asymmetric war, 21st century war, etc.), discussed forecasting and future war in the journal *Military Thought*. Forecasting, they note, reflects how the geostrategic situation is developing, how interstate relations are changing, and how these changes are affecting military art. To achieve its objectives, the military must "abandon decisively" the rigid cannons of modern military art.[29] Perhaps this implies the extended use of more indirect and asymmetric responses to threat perceptions.

Long-term forecasting "has assumed the significance of a national task. Nothing will take the place of long-term forecasting trends in the way in which the geostrategic situation is going…"[30] Forecasting must take into consideration that war's concept is expanding and includes economic, ideological,

psychological, informational, and other areas, not just armaments.[31] The authors support the contention that all efforts initially will be tied to the attainment of information superiority, noting that "Information warfare in the new conditions will be the starting point of every action now called the new-type of warfare (a hybrid war) in which a broad use is made of the mass media and global computer networks."[32] Information weapons will paralyze the computer systems that control troops and weapons and deprive the enemy of information transmission functions. Computers will turn into a strategic weapon of future wars.[33]

The authors believe that future wars will begin with a strategic electronic warfare and aerospace attack, augmented with cruise missiles, reconnaissance-strike and -fire delivery systems, and unmanned aerial vehicles (UAVs) and robots. The goal is overwhelming superiority everywhere.[34] Speed, synchronization, and concurrency will be decisive factors for military operations, with joint task forces and their strike assets controlled in real time relying on computers, telecommunications, and satellite communications.[35]

The authors then offered a few thoughts on future war that aren't usually addressed. They stated that unconventional arms might cause earthquakes, typhoons, or heavy downpours leading to the erosion of economies and to the intensification of tension among the population in an adversary country. Further, space-based attack weapons, orbiting battle space stations, automated weapons control, and new weapons of improved destructive power, range, and accuracy will require new forms and methods of warfare.[36] Electromagnetic, information, and infrasonic weapons may be used against forces, economic facilities, government and military control systems, and energy generation centers.[37]

Finally, future wars's main distinctions are: weapons designed on NPP; a reduction in the significance of nuclear weapons; strategic operations as the principal form of strategic task fulfillment; and a unified system for collecting and processing information through the integration of space, aerial, and ground reconnaissance capabilities for target allocation. The opening period of a future war with a competent enemy force would last at least a month, according to Chekinov and Bodanov, while the closing period has to conclude as soon as possible.[38]

In 2017 V. A. Kiselev, a professor at Russia's Combined Arms Academy, discussed two lines of thinking in *Military Thought* that have emerged about how warfare is conducted today and in the future. First, wars are designed to destroy a country's military and its economic infrastructure without the use of ground troops, just aerospace weapons. Second, wars still can be conducted to seize territory by eventually relying on ground forces to obtain the war's objectives.[39] In both examples, the use of precision weaponry begins the active phase of conflict after being preceded by diplomatic, economic, and financial moves. Kiselev offered a third type of warfare as well, one that relies on illegal armed formations or private military companies. In each of the cases he cites, Kiselev refers to conflicts in which the US military has been involved,[40] failing to mention that all three types were used by Russia in Syria if one interpolates special forces as ground forces.

Kiselev focused on developments in future war's nature. He stated that

- Outer space and information are two new independent spheres of combat actions;
- Major targets and critical facilities will be attacked by precision fire and electronic and information attacks;
- Reconnaissance-strike systems and electronic warfare systems should be used jointly;

- The technological constituent of future war will be weapons based on new physical principles;
- And information confrontation (in the form of a set of measures aimed at exerting influence on the will, emotions, behavior, psychology, and morale of the adversary) will play a prominent role.[41]

It is expected that information and cyberwar will merge and provide feed-forward and feed-back between what he called Psywars and Neurowars [no further explanation of either term was offered].[42] Behavioral wars drew his special attention, describing them as not only a new warfare type but as the weapons of tomorrow:

> At the core of those [behavior wars] is manipulating behavior algorithms, habits, activity stereotypes, etc. that have been installed in us by our social group, and also by our biographies and cultural environment. In short, the instruments for behavioral warfare work by separating the habit from the previously formed type of activity, the situation that has formed the latter, and using behavior patterns to achieve other objectives.[43]

In closing, Kiselev noted that the theory of a new-type war must be elaborated, and it is "vital to develop the theory of asymmetric and indirect actions in conditions when the adversary acts with coalition groupings" and maintains numerical and technological superiority.[44] Asymmetric actions include secrecy, finding weak points and vulnerable facilities in an adversary, and imposing one's own version of conflict on an adversary.[45]

General of the Army Makhmut Gareyev, one of Russia's greatest military theoreticians, stated in 2017 that the greatest enemy for the art of war is a "stereotyped and schematic approach."[46] Gareyev noted regarding future war that:

> As far as the operations and hostilities of the future are concerned, it may be assumed that they will differ by their increased scale, the participation of heterogeneous forces equipped with complex heterogeneous combat hardware, a high level of dynamism and maneuverability, the absence of coherent fronts, a dramatically and rapidly changing situation, a fierce struggle to seize and retain the initiative, and a strong electronic warfare element. All this will significantly complicate the command and control of troops and naval forces.[47]

A high level of planning will become the main prerequisite for success and previously formulated scenarios and models of combat operations will have to be implemented due to the speed and mobility of contemporary operations.[48] This appears to be Gareyev's statement that these models and scenarios must be ready for the initial period of war.[49]

At a November 2017 speech to the Defense Ministry Collegium, General Staff Chief V. V. Gerasimov discussed the type of forces Russia should plan to use in case of war. He stated that primary military efforts would continue to be placed on the development of nuclear and nonnuclear forces, the latter specified as precision guided missiles and Kalibr and Iskander-M missiles. Other efforts included an emphasis on ensuring an echeloned system of aerospace defense, improving Russia's command and control system, improving the organizational development of general-purpose forces, creating self-

sufficient groupings of troops and forces on strategic axes, and reequipping forces with state-of-the-art systems. Gerasimov discussed the need for increased readiness and arming of the military districts. He noted that improvements were made in UAVs, command and control capabilities, and electronic warfare systems.[50] Gerasimov's comment about increased arming of military districts implies an adjustment of the correlation of forces in each one.

Finally, in 2018, at the Academy of Military Science, Gerasimov produced what he described as the outlines of a probable future war. Such conflicts will feature the extensive employment of precision weapons and other types of new weaponry, such as robot technology. Priority destruction targets will include economic and state control systems, and the information sphere and space will be dynamically involved. Finally, a special role will be afforded to countering communications, reconnaissance, and navigation systems.[51] Gerasimov noted that UAVs, on the one hand, are witnessing the development of future multipurpose complexes that make both reconnaissance and strike tasks plausible. On the other hand, Russian scientists are developing futuristic systems to counter adversarial use of UAVs with weaponry based on NPP.[52] He foresees the use of precision means, including hypersonic, to shift the "principal portion" of strategic deterrence from the nuclear to the nonnuclear forces. The role of command and control organs is increasing in regard to decision-making, and future research must be directed at improving this area.[53] Local war experiences and Syrian operations have given "a new impulse for improving the system of the comprehensive destruction of the enemy."[54] Also of note, Gerasimov used the term "comprehensive destruction" three times in his presentation. In 2013 he noted that nonmilitary means would be used over military ones by a ratio of 4:1. There was scant mention of nonmilitary issues in 2018.

**Conclusions**

This analysis of Russian future war thinking over the past six years demonstrates that it is an evolving and dynamic process that is continuously being updated. An entire host of various weaponry (NPP, ecological, ultrasonic, etc.) is apparently under development. There were also warnings to "abandon decisively" the rigid cannons of military art and develop new methods for its conduct.

Three issues stood out from the analysis. First is the necessity to completely plan for the IPW now in peacetime. Specific scenarios are required. Second was the warning that information technology's use in the IPW could end a war before it begins if, for example, information infrastructure or command and control nodes are completely put out of commission. Third, and perhaps most important, was the warning that a contemporary war's destructive nature, due to the growing capabilities of even conventional weapons, could quickly turn decision-makers to the use of weapons of mass destruction. Before long new spheres of struggle (quantum, etc.) not much in evidence yet will appear, making forecasting more complicated. These variables will enter the armed struggle matrix, affecting the forms and methods of combat actions, the theater's specific characteristics, and other issues, such as nonmilitary trends.

Information warfare was stated to be the start point for all new-types of warfare, since even the mass media and global computer networks can get involved. The study of asymmetric, indirect actions, and aerospace operations is important. Finally, future war's priority destruction targets were stated to be economic and state control systems. Gerasimov's conviction that "comprehensive destruction" is required was not reassuring. Future war preparations also would involve assigning a special role to countering communications, reconnaissance, and navigation systems.

Russia will continue to evaluate all aspects of its operating environment and look for places where it can gain an operational advantage in the opening phase of any future conflict. One is reminded of the wise words of now deceased Russian General Major V. D. Ryabchuk, who noted that "thought is the first to join a battle. Indeed, thought is a weapon…"[55]

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