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Timothy Thomas

Foreign Military Studies Office

ABSTRACT

This article highlights both the evolution of Russian thinking and Russian General Staff interest in a concept known as new-type warfare. In early 2015, General-Lieutenant A. V. Kartapolov, then director of the Russian General Staff's Main Operation's Directorate, both explained the concept in an article written for the *Journal of the Academy of Military Science* and provided a schematic visualization of the concept. Before this revelation, Western analysts had thought that the Russian military was using either hybrid warfare concepts or new-generation warfare (NGW) means. In response to these assertions from the West, Russian military officers stated that they do not conduct hybrid war, noting clearly that this is a Western method for waging modern war. However, two retired Russian officers did write extensively on NGW in 2012 and 2013, which prompted much discussion in the West. This concept was not directly refuted by Russian military officers, which may mean it is still a relevant way to consider warfare within the ranks of military professionals. At this moment, however, with General Staff backing, it appears that the new-type warfare concept has won out over NGW, although an evolution and integration of thinking is also apparent in the progression from hybrid, to NGW, to new-type warfare.

Introduction

For the past two or three years, US military analysts have discussed Russia's concepts of hybrid and new-generation war (NGW) methods. In early 2015 General-Lieutenant A. V. Kartapolov, then director of the Russian General Staff's Main Operation's Directorate, explained another approach to understanding Russia's view of contemporary war, which he labeled *new-type war* (NTW). His description appeared in an article written for the *Journal of the Academy of Military Science*. New-type warfare appears to have strong General

CONTACT Timothy Thomas ✉ timothy.l.thomas20.civ@mail.mil 📠 ATIN-F Mr. Thomas, 731 McClellan Avenue, Ft. Leavenworth, KS 66027-1350.

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Staff backing. Both Kartapolov and General V. V. Gerasimov, Russia's Chief of the General Staff, have used this term in their important speeches at the Academy of Military Science. Neither officer has used the term *new-generation warfare*. Further, Russian military officers (to include Gerasimov) refute the use of hybrid methods by the Russian military, stating clearly that this is a Western method of conducting modern war. Other officers make the same claims about NGW and NTW, initially stating that these are Western concepts (an argument Westerners have not made!). Clearly Russia has studied all three and learned from an examination of the concepts, eventually describing their components and how to counter them. This appears to be the use of an old Soviet method, that being to describe how another country conducts war when actually the description is of Russian methods.

This indicates that an evolution in military thinking is underway in Russia that has culminated with the General Staff's counter-NTW focus at the moment. It is doubtful that this progression will stop here, since new forms and methods are under development every month from lessons learned in Syria, in Ukraine, and in dealing with the Arctic. Putting Russia's military thought in a specific box, whether it be NGW or NTW, is a mistake, as it is evolving and changing over time. This article first addresses the Russian military's discussion of hybrid, new-generation, and new-type thinking. It then addresses each aspect separately, pointing out specific Russian responses and the context within which each is considered.

The integration of hybrid, NGW, and NTW

Hybrid warfare and NGW have been a center of attention for US and Russian military analysts for many years. NGW, for example, was highlighted in an important 2013 Russian military journal, *Military Thought*, by retired Russian officers General-Lieutenant S. A. Bogdanov and Reserve Colonel S. G. Chekinov. Their discussion of NGW was wide ranging and, at times, fascinating. *They clearly described NGW as a way that other nations were waging war and a form of war against which Russia must be ready to respond.* In the absence of any General Staff commentary at the time, their emphasis appeared to indicate Russian thinking about future war. NTW, on the other hand, has still not appeared in Russia's public media, just in the Academy's publication, perhaps indicating why Western focus on NGW has persisted.

Bogdanov and Chekinov appeared to be restating many of the thoughts of retired (now deceased) General-Lieutenant Vladimir Slipchenko, who was a driving force for new thinking in Russia in the 1990s and the early part of the next century. He wrote often on what he referred to as 'sixth generation warfare', or noncontact warfare, which would be based on high-technology weaponry and systems able to maneuver in small groups. Slipchenko's work may be considered as a (or *the*!) most important source behind much of the new-generation warfare thinking and postulating of Bogandov and Chekinov. In fact, in 2013, a

Slipchenko-authored article appeared posthumously in the Russian military publication *Army Journal*. It discussed Slipchenko's description of planetary warfare and several other new-generation warfare concepts.

However, as we now are a year and a half into the General Staff's revelation of NTW (and the term NGW has all but disappeared from Russian military publications), more focus is required on the work of the most prominent members of the General Staff, Kartapolov and Gerasimov. Further, Bogdanov and Chekinov are also using the term NTW. NTW appears to be describing war's evolving character, while NGW may more likely be a reference to a method of war (the Russian military views 'methods' as composed of weapons and military art). An integration of Russian lessons learned from viewing the West's hybrid warfare concept, the thoughts of Bogdanov and Chekinov on NGW, and the work of Gerasimov and Kartapolov on NTW may represent the present progress in the evolution of Russian military thought.

The attachment at Appendix One is how Kartapolov outlined how the General Staff appears to visualize the way NTW or future war would develop, from peacetime to wartime. *While its component parts may not be that different from the hybrid and NGW concepts, no such schematic was ever published for either of the latter.* Thus there is some templated clarity with the NTW concept. Kartapolov described the NTW schematic as something both the West and Russia were visualizing. With regard to Russia, he noted:

In connection with this, nonstandard forms and methods are being developed for the employment of our [Russian] Armed Forces, which will make it possible to level the enemy's technological superiority. For this, the features of preparation and conduct of the new-type warfare are being fully used and 'asymmetric' methods of confronting the enemy are being developed.¹

Here 'asymmetric' may be a reference to the military art aspect of Russian methods. In an earlier NGW-related article, Bogdanov and Chekinov discussed the importance of attaining information superiority over an opponent, especially if the initial period of war (IPW) is to be won. Perhaps the IPW is another aspect of military art, winning the initiative immediately and not through attrition as in the past.

Thus, while the term NTW appears to be the 'chosen one' at present (until another concept is offered in the evolution of military thought), the term NGW should not disappear from Western consideration. It should be considered as perhaps *the* major 'weapons' aspect of Russia's 'methods' of war. Lately Russian discussions of weaponry have included killer satellites and Kamikaze unmanned

¹A. V. Kartapolov, 'Lessons of Military Conflicts, Prospects for the Development of Means and Methods of Administering Them, Direct and Indirect Actions in Contemporary International Conflicts', *Journal of the Academy of Military Science*, 2 (2015), p. 35. For this article, a *form* refers to an organizational construct (engagement, strike, offense, defense, joint mobile team, etc.), while *methods* refer to either weapon developments or military art considerations. See the FMSSO website for a further explanation in 'Thinking Like a Russian Officer' by the author.

aerial vehicles, both of which are types of new-generation weaponry. In his speeches over the past year, President Vladimir Putin has never referred to 'new-generation war', but on numerous occasions he referred to new-generation weapons or equipment types: armor, digital radios, devices, systems, helicopters, munitions, space vehicles, and so on, each time placing 'new generation' in front of the piece of equipment in question. Bogdanov's and Chekinov's NGW discussion also contains outlier topics that are often ignored by a new generation of Russian scholars: the forms and methods of war, for example, which indicates its continued need for review.

In summary, while General Staff emphasis makes it appear that NTW is the new sheriff in town and descriptor of war's character, NGW should remain as its highly important deputy, one that has very adequately expressed the importance of the information and economic aspects of conducting future war. Hybrid war concepts, according to the Russian military press, appear to be of lesser concern except when addressing how an aggressor might attack Russia. Still they played a role in the evolution of military thought.

Addressing hybrid warfare in Russia: Andrianov/Loyko and Gerasimov explain

Many Western analysts initially focused their attention on hybrid war. The term was under discussion in the United States, and Russian actions appeared to fit its descriptors. It appears that Western analysts transposed the concept onto Russia's methods, and their explanation gained credibility, as Russian journalists and European analysts picked up the concept as well. However, no Russian military officer was stating that the Russian armed forces were using hybrid operations. *Rather they stated that Russia did not conduct hybrid war and that it was the West that used that method against them.*

For example, with regard to hybrid war, a Russian *Military Thought* article in 2015 noted the following:

'Hybrid warfare (gibridnaya voyna)', then, is not exactly the right term and is slightly at odds with the glossary used in this country's military science. Essentially, these actions can be regarded as a form of confrontation between countries or, in a narrow sense, as a form in which forces and capabilities are used to assure national security.²

In Gerasimov's 2016 speech at the Academy of Military Science, he discussed the threat that hybrid war presents to the Russian Federation and what Russia intends to do about it. He began by noting that in contemporary conflict, 'the emphasis on the methods of fighting moves toward the complex

²V. B. Andrianov and V. V. Loyko, 'Questions Regarding the Use of the Armed Forces of the Russian Federation in Crisis Situations in Peacetime', *Voennaya Mysl' (Military Thought)*, 1 (2015), p. 68.

application of political, economic, information, and other nonmilitary means, carried out with the support of military force'.³ These factors, he notes, are the so-called hybrid methods.

Fears that Gerasimov highlighted were the ability of information technologies to manipulate protest in a country, which must be prevented, and the ability of the Internet to exert an impact on the consciousness of citizens, which requires Russia's orchestration of interagency activity to neutralize such impacts. Information resources must be viewed as potential effective weapons that can be used against Russia. Such worries fit with Russia's focus on the so-called information-psychological threat to the nation that information warfare specialists point out.

To counter hybrid techniques, Gerasimov recommended two deterrence-type approaches. Internally the country's military and civilian assets must be mobilized to neutralize threats and counter or deter hybrid methods. Externally, Russia's cooperation with foreign countries and organizations such as the Collective Security Treaty Organization; the Shanghai Cooperation Organization; and the Brazil, Russia, India, China, and South Africa economic association can help to deter foreign aggression through a demonstration of solidarity with other nations.

Today, Gerasimov notes, Russia must be prepared to protect state interests against an adversary's employment of both traditional and hybrid methods of confrontation. He pointed out the following description of hybrid methods in his speech:

- Their essence is to attain political goals with minimal armed impact through undermining an adversary's military and economic potential, exerting information-psychological pressure, actively supporting a domestic opposition, and using insurgency or subversive methods.
- Their principal means are 'color revolutions', which are effectively coups d'état organized from the outside and based on technologies that manipulate a population's protest potential and other nonmilitary means; color revolution results in the killing of civilian populations under national or religious criteria, rampant crime, and mass uncontrolled migration, and color revolutions are complemented by covert military means where force is used under the cover of peace-enforcement activities or crisis resolution.
- States under hybrid aggression are relegated to conditions of chaos, domestic political crisis, and economic collapse. Thus Russia must confront them.
- Trends in the evolution of hybrid war indicate that changes must be instituted in the organization of defense, and must include not just the

³V. Gerasimov, 'Hybrid Warfare Requires High-Tech Weapons and a Scientific Basis', *Military-Industrial Courier*, 9 March 2016. All future references to hybrid war in this section are from this article.

military but all organs of authority. Some of the measures required are laid out in the Defense Plan of the Russian Federation and in the Defense Plan for 2016–2020. A set of military and nonmilitary measures are laid out to counter hybrid methods of pressure.

- Russia must focus on confronting the primary constituents of hybrid methods, such as the falsifying of events and the imposition of restrictions on the activity of the mass media. Their impact can be the same as the large-scale employment of troops and forces. The massive influence on people's consciousness facilitated the inflammation of nationalism in Ukraine and upheavals in the Arab world. The rise of hybrid threats means Russia must put more emphasis on territorial defense through coordinating with all federal organs of executive authority. This includes countering foreign private military companies, subversive groups, and terrorist organizations.

To confront these threats, Gerasimov calls for the Academy of Military Science's assistance in helping to develop the forms and methods to counter them. First, he fears the United States' advanced form of combat actions — the globally integrated operations that presupposes the creation of combined armed force groupings to defeat an enemy through joint actions and a 21st century blitzkrieg design. Both the means of armed conflict (combination of traditional and hybrid methods) and forms of resolving interstate differences by other nations have changed. Russia must be aware of this. Gerasimov even noted that hybrid methods were introduced in Syria by specific actors who were usually hidden in the shadows. The scientific development of the forms (the organizations for combat) and methods (the type of armaments developed along with the creative use of military art) of applying joint institutional groups and sequences of military and nonmilitary actions must be considered for crisis situations.

Military science must develop the vectors of development of military art [author: methods] and solve problems associated with problems facing the build-up [author: forms] of the Russian Armed Forces. Gerasimov adds that the Academy must focus on the 'new perspective vectors of military research, the evolution of the new forms of strategic activities of the Armed Forces, space and information warfare, and the development of requirements for the prospective armaments [author: methods] and command and control systems' [author: forms]. Of particular importance is the study of the nature of modern warfare and the problems of strategic deterrence, which means finding ways to deter hybrid pressures with nonnuclear means. Thus, Gerasimov clearly indicates that hybrid methods were spawned and developed in the West, and Russia must find ways to counter them.

Addressing NGW in Russia: Discussions in 2008, 2012, and 2013 among specialists

2008: NGW makes its first appearance in the Gizitdinova and Cherkasov article

The term *new-generation war* first appeared in a *Military Thought* article in 2008 that discussed the Russian Navy. The authors noted that in the early 21st century a number of countries are studying advances in science and technology that are leading to new types of weaponry. The development of new types of weapons and weapon systems appears to be capable of changing the character of war. For example, in the Balkans (1999) and Iraq (1991 and 2003) NGW appeared to be about *standoff warfare with the use of precision weapons*. There were specific features to such warfare, to include that civilian sources (industrial centers and power systems, control and communications centers, government agencies, and crucial military installations) would be targeted along with armed forces personnel. Precision strikes were used in conjunction with electronic suppression systems. Regional and global information spaces were created. Thus, oceans and aerospace can serve as springboards for armed aggression, relying on mission success in the information field. Based on an analysis of the essence of NGW standoff fighting, the Navy's main task appeared to be the detection, tracking, and destruction of an aggressor's carriers of precision weapons: aircraft carriers, submarines, and missile-carrying surface ships, as well as mobile underwater robots.⁴

2012: Chekinov and Bogdanov on NGW and the initial period of war

NGW was explained further in articles written in 2012 and 2013 by Bogdanov and Chekinov. Their articles drew much attention to the topic. Their 2012 article explained how NGW capabilities would seriously impact the initial period of war, where conflicts would, in fact, be won or lost. In their 2013 article the authors stated that it was the West that had been using NGW techniques for years, and only in the last two pages did they note that Russia had to prepare to fight against NGW. Of equal interest is that at the end of 2015 these authors used the term NTW in an article about forecasting but did not use NGW. Context may play a very important role here. When Chekinov and Bogdanov wrote in 2012 and 2013, Russia's intervention into Crimea and Eastern Ukraine had not occurred. By 2014 and 2015, military involvement had moved from Ukraine to Syria, and a general overall plan of war's character and conduct was required, one more down to earth than NGW.

⁴M. R. Gizitdinova and S. M. Cherkasov, 'Mobile Underwater Robots: Their Part in Navy Missions', *Military Thought*, 1 (2008), pp. 16, 21.

The overall structure of their 2012 *Military Thought* article, which was dedicated to the initial period of war, contained four parts: a historical background and discussion of the importance of the initial period of war (IPW); a discussion of how foreign experts, Russia, China, and the United States view armed struggle in 2012; one mention of a 'new type' of armed struggle and a more general discussion of the forms and methods of warfare that are emerging; and several components of NGW. The article contained numerous references to the necessity of attaining information superiority over a potential adversary and stressed on several occasions the importance of the economy in supporting NGW operations. The first eight pages of the article are stage-setters (there are 13 actual pages of text). They describe how potential adversaries might conduct future war. Only on the article's ninth page is the term NGW used for the first time.

IPW was defined and interpreted as the time, in the course of military history, when the warring states deployed groups of their armed forces deployed before the start of the war to achieve their short-range strategic objectives or to create favorable conditions for committing their main forces and continuing with more operations.⁵ Historical experience indicates that a country having a weak economy is more than likely to suffer defeat in any war, and this truth acquires fresh currency in our day. In the past, countries falling victim to aggression had enough time to put their economies on a war footing because of the relatively long IPW, which took on the form of attrition. It is very unlikely that this will be the case in the 21st century, due to the fast rate at which future wars will be fought.⁶

The experience of combat operations conducted by the United States and its allies in the last decade or two shows that strategic objectives cannot be achieved without speed. Gaining information superiority over the adversary early on has become a priority.⁷ The IPW's preparation takes place in peacetime and, with it, the goal of achieving information superiority. In all likelihood, the aggressor launches a wide-scale targeted information operation and intense reconnaissance activities, including a set of related and closely coordinated actions, to achieve such superiority. Simultaneously, the opposing country's government and military commands will have to take a series of political, economic, and organizational military measures and deal with moral, psychological, information, and camouflage matters as well.⁸

The IPW will be decisive for the outcome of any future war. It comprises several steps, to include subverting and provoking the defending country's military and political leaders; bribing top officials of that country to make it

⁵S. G. Chekinov and S. A. Bogdanov, 'The Initial Period of War and Its Influence on the Preparation of the Country for Future Wars', *Military Thought*, 11 (2012), p. 16.

⁶*Ibid.*, p. 18.

⁷*Ibid.*, p. 24.

⁸*Ibid.*

ungovernable and reduce it to a state of chaos, thereby forcing it to give up resistance; launching information operations, including technological and psychological information attacks; initiating electronic and fire operations; employing an aerospace operation from all directions to the full depth of the country under attack; and generating electronic interference a few hours before the start of the aerospace operation.⁹ The length of the IPW will probably depend on several things, such as the attacker's end goals, the scale of military operations (a local or regional large-scale war), and the status of its military and economic potential. It may last from four to six weeks. With the start of aggression, operations will aim to disorganize the government system, demoralize the population and personnel of the armed forces being attacked, and make its military and political leaders unable to rally their forces to repel aggression. Briefly, major military, political, and strategic objectives of the war must be achieved in its initial period.¹⁰ Clearly, the use of information operations, both via digits and media efforts, remains central to the attainment of information superiority.

The authors note that foreign military experts believe that the evolution of control mechanisms over the armed forces in modern-age military operations encourages a fast-fought and efficient form of military operations highlighted by not only rapid control but also the self-synchronization of the forces' structure.¹¹ Foreign military experts hold that a good disinformation campaign, one that deludes the opposition's military and political leaders about the aggressor's intention, is an effective way to address the problem. The dissemination of false strategic military information through diplomatic channels and on military and government-controlled and private radio and television about the possible status and actions of its forces helps accomplish this goal. Top political figures and high-ranking military officers may go on the air, as was done on the eve of aggression in Iraq, to mislead the adversary's military and political leaders. Such activities help send a false signal about the aggressor's real intentions toward the country it is about to attack. This might include the preparation of a special information operation, one in which broadcasts of information on various communication channels are used to prepare the economy and public for war, the mobilization of reservists takes place, army units are placed on high alert, the deployment of reserves from the heartland takes place, false activities designed to be captured by adversary reconnaissance are conducted, and a campaign is launched to inform the public about adversary motivation and intentions.¹²

The authors add that the United States used this approach in the Persian Gulf Wars, Yugoslavia, Afghanistan, and North African countries.¹³ The wars and

⁹*Ibid.*, pp. 24–25.

¹⁰*Ibid.*, p. 25.

¹¹*Ibid.*, p. 19.

¹²*Ibid.*, pp. 26–27.

armed conflicts involving the armed forces of the United States and its allies in recent decades provide evidence that the latest information technologies, weapons, military equipment, reconnaissance and electronic warfare (EW) capabilities, and automated control and communication systems have had their effect on the forms and methods of modern-day military operations.¹⁴

Bogdanov and Chekinov write that American experts visualize the following setting for a hypothetical start of a future war: An information attack disables completely several areas, to include the adversary's air defense, aerial reconnaissance system, antiaircraft missile and artillery cover, fighter aircraft cover, and weapons control system. Western military experts believe that the loss of up to 50 percent of the military control personnel and capabilities would have an adverse effect on the adversary's will to fight on and force him to cease resistance. This, of course, is the purpose for which network-centric military operations are undertaken.¹⁵ The experience accumulated by the United States and its allies in resolving interstate differences over the past decade has convinced military and political leaders and the public in many countries that any conflicts flaring up in the short term will be managed through local wars and occasional armed clashes, rather than large-scale military aggression.¹⁶ In 2012, however, according to Bogdanov and Chekinov, a direct military threat to the Russian Federation from the United States and NATO countries was deemed unlikely in the long term. However, international relations clearly contain a great many differences that could lead to potential conflict. These include the depletion of natural resources across the world, rising demographic and ethno-political tensions in many countries, and widening gaps in the economic development and living standards among nations. These issues may cause geopolitical rivalry to erupt in many fields.¹⁷

Economics are a main source that pushes social groups and countries into head-on confrontation. While the direct causes of wars and armed conflicts lie in politics, the roots of conflicts and antagonisms ultimately come down to economic motivations. In our day, the economic factor has turned into an ingredient of war. The forms and methods of economic struggle are interwoven ever more closely with armed struggle.¹⁸ Not only does a stable economy help prepare a nation for the onset of fast-paced, modern-day conflict with new organizational concepts, it can also help provide the funding for the development of new weaponry and, consequently, new innovative thought regarding ways to apply military art. Thus, a strong economy feeds the potential for the development of new forms and methods

¹⁴*Ibid.*, p. 19.

¹⁵*Ibid.*, pp. 19–20.

¹⁶*Ibid.*, p. 21.

¹⁷*Ibid.*, p. 26.

¹⁸*Ibid.*, pp. 20–21.

of waging modern-day wars and armed conflicts in general. Nearly all military operations conducted today provide proof that new weapons have a significant effect on the substance of armed struggle.

The Russian Defense Minister's statement that the 'development of weapons using new physical principles is among the projects' of the government weapons procurement program for 2011 and 2012 clearly indicated Russia's military goals at that time. Such weapons, in addition to nuclear weapons, will offer Russia and other major military powers substantially new opportunities to achieve their political and strategic objectives in resolving interstate differences on beneficial terms. If used in war, the new weapons systems will be just as effective as nuclear weapons but will be more tolerable to the public from the political and military viewpoints.¹⁹

In 2012 Russia's military and political leaders subscribed to the view that the likelihood of a global war among nuclear powers was small. They also believed that as long as their strategic nuclear forces were in good shape, no other country would attempt a full-scale aggression against Russia.²⁰ Under such conditions, Russia will utilize every kind of deterrence: 'by force or by peaceful actions, or by nonmilitary and indirect (asymmetrical) actions'.²¹ Any form or method to deter the aggressor by force will be used. These measures include the direct threat of attack, a demonstrative deployment of a powerful defensive task force in the area where the aggressor is expected to strike, an ultimatum with a caution that Russia would (in the event of war) use nuclear weapons immediately and exercise no restraint in employing precision weapons to destroy strategically vital objectives on the aggressor's territory, and the utilization of an information campaign to mislead the adversary about Russia's readiness to counter aggression.²²

The previous discussion summarizes the first eight pages of the article. It was obvious that the term NGW was not used, perhaps because it had not attained the importance, in the authors' eyes, that it deserved at the time. The authors mention NGW for the first time only on the ninth page of the article (earlier they mentioned new-generation weapons and new-generation reconnaissance and electronic warfare capabilities but not NGW). New-generation wars appear to be composed of armed conflicts and local or large-scale wars, and they will have new substance, taking the form of fire strikes, electronic strikes, robot-controlled warfare, aerospace and mobile aerial operations, air assaults, information reconnaissance strikes, anti-reconnaissance and similar operations, and combat and other actions.²³ A NGW will be caused by the intensifying competition for larger spheres of influence, other countries' territories, and access to energy sources.²⁴ This NGW description appears

¹⁹*Ibid.*, p. 20.

²⁰*Ibid.*, p. 23.

²¹*Ibid.*, p. 26.

²²*Ibid.*

based on how Bogdanov and Chekinov visualized how future wars would unfold from watching other nations, the United States in particular, fight. NGW appears to be based on lessons learned.

The scale and persistence of military operations will grow, with the attacker seeking to achieve the most tangible results and achievable objectives within the shortest time. Another requirement will be to keep loss of life and inventory at a minimum.²⁵ Further, NGW is designed to make an adversary's government system unmanageable and its population demoralized by aggression and cause destruction and damage to the key elements of its military-industrial complex. In the end, this may prove to be too hard for the defender to adapt his economy to the nation's war needs.²⁶

NGW attack methods will include two types in particular: technological information attacks, which are launched against the hardware and software core of the adversary's information and telecommunications environment, or cyberspace, in order to damage it while protecting friendly control systems against similar attacks,²⁷ and psychological information attacks, which will be directed against information exchanges in cyberspace in a bid to achieve information superiority and cause damage to the adversary.²⁸

Future war goals in NGW will include the attainment of information superiority over an adversary via the mass media in order to keep ideas of violence, treachery, and immorality from the public. This requires that the mass media be kept under government control. Main efforts will be focused against aggressor governments and military control systems, while national information sources will continue to be protected from adversary influence. IPW goals will be accomplished by employing military, economic, and information technology measures in combination with psychological information campaigns.²⁹

2013: Chekinov and Bogdanov on NGW

Chekinov and Bogdanov continued their discussion of NGW in a 2013 *Military Thought* article. It focused on four areas: a description of NGW and future war, to include causes and trends; how the United States used NGW in the Gulf War; how an aggressor would use NGW against Russia; and how Russia should prepare to confront it. Initially the article notes that Russian military experts offered their visions of how the nation can be made secure militarily, the kind of future war they call new-generation warfare, and what the Russian Armed Forces makeup must be.³⁰ The character of

²⁵Ibid., p. 25.

²⁶Ibid., p. 25.

²⁷Ibid., p. 25.

²⁸Ibid., p. 25.

²⁹Ibid., pp. 25–26.

contemporary armed warfare derives from a network-centric environment, where military operations are controlled through information and electronics (computers and EW), along with aerospace operations. Future war will require one side gaining information superiority over the other.³¹ These information and electronic technologies have altered the patterns of both manpower employment and conduct of military operations, as well as the forms and methods of armed struggle. Finding causes and identifying trends provides insights into how armed struggles may be fought in the future.³²

As opposed to their 2012 article, the authors used the term NGW immediately and often (some 28 times in 12 pages of text), and they quickly made the point that the current weapons systems do not fit the kind of future war that is envisioned. This will require Russia's military to restructure and rework their approach to warfare. There is the realization that some non-military options are even superior to the power of weapons. Other factors include a rise in the role of mobile joint forces operating in an integrated reconnaissance and information environment through new control and logistic systems and the fact that technologies have reduced the distance (physical, temporal, informational) between troops and their superiors.³³

Precision weapons and those based on new physical principles and robots are going into service.³⁴ Bogdanov and Chekinov note that 'No goal will be achieved in future wars unless one belligerent gains information superiority over the other'.³⁵ Such advances are seen as leveling off the differences among strategy, operations, and tactics, as well as between offense and defense.³⁶ According to the authors, a struggle is a confrontation without the use of arms. A war is a confrontation where physical force and armed violence is used.³⁷

Cyber issues have changed the nature, methods, and techniques used by state and government agencies; influenced social relationships; and affected the methods of military operations, creating new information threats and challenges.³⁸ NGW belongs to the age of high-tech wars, and operational objectives will depend on new technologies and weapons, altering the character of armed struggle. Fire strikes; space-based systems; EW forces; electromagnetic, information, infrasound, and psychotronic effects will be employed; along with corrosive chemical and biological compounds to erode an adversary's capabilities.³⁹ This list differs from those in their 2012 article (see footnote 23),

³¹Ibid., p. 14.

³²Ibid., p. 17.

³³Ibid., p. 13.

³⁴Ibid.

³⁵Ibid.

³⁶Ibid.

³⁷Ibid., p. 14.

³⁸Ibid.

³⁹Ibid., p. 15.

with the significant difference being the addition of the psychological elements of infrasound and psychotronic effects.

Nontraditional forms of armed struggle, the authors add, will cause earthquakes, typhoons, and heavy rainfall to damage economies. New forms and methods of employing joint forces in operations and engagements will be used.⁴⁰ The United States used new forms and methods in the Gulf War to demonstrate that technological superiority cancels out numerical advantage. There were no clear dividing lines between forces; flanks were exposed; the operational order of battle had undefended gaps; and key enemy economic facilities of military significance, control centers, and life support systems were attacked. Reconnaissance, fire, electronic, and information warfare forces of different branches and arms of service were integrated for the first time; and orbiting satellites were used at the strategic, operational, and tactical levels. The latter played a special role, frequently being the only source of intelligence.

Foreign countries, especially NATO manuals, place EW capabilities next to nuclear and conventional arms and are transformed into a type of combat operation (and not a combat support activity) in a network-centric troop control environment.⁴¹ The Russians thus believe that EW capabilities have grown in importance and context, and they must be taken into consideration. This could be a mirror-imaging problem, as the West's EW capability may or may not be as strong as Russia concludes.

After only four pages of explanation, the authors then note that they will 'venture their own viewpoint on the character and content of a new-generation war'.⁴² They offer that the

... introduction of the latest information technologies to develop effective modern weapons, reconnaissance, EW, and communication capabilities, and automated control systems has altered significantly the patterns of manpower employment and the conduct of military operations, and is going to have a decisive impact on the development of new patterns.⁴³

Information and psychological warfare will dominate NGW, they note, aiming to achieve superiority in troop and weapons control while depressing opponents morally and psychologically, laying the groundwork for victory. Asymmetric actions in the form of indirect and nonmilitary actions and measures will be used. Indirect actions in a new technological format will draw on forms and methods of nonmilitary techniques and measures. Interstate differences preceding NGW will be resolved by integrating various capabilities (religious, cultural, political, information) into a peaceful environment. Nonmilitary

⁴⁰Ibid., p. 15.

⁴¹Ibid., pp. 16–17.

⁴²Ibid., p. 17.

⁴³Ibid.

measures are used to provide an unflattering image of an aggressor in the public's opinion and to help reduce his chances for engaging in hostile activities. Aggressors will try to involve all public institutions in the country it intends to attack using information technologies. Thus they will use mass media, religious organizations, cultural institutions, nongovernmental organizations, public movements (financed from abroad), and scholars engaged in research in a distributed attack to strike at a country's social system to promote democracy and human rights. The US propaganda effort, the authors note, is controlled from MacDill, Florida, by influence agents.⁴⁴

Advanced countries have already used this 'new' (perhaps new at the time!) strategy for preparing and conducting NGW. The quick development of changes in the military, especially technological changes, have caused the United States to develop a network-centric warfare (NCW) concept. Bogdanov and Chekinov state that the concept enables control over combat operations and a new way of directing 21st century operations. Armed with the NCW principle, the United States plans to use information attack at the outset of a NGW to disable all air defense systems. This is the end goal of the NCW concept. NCW combines information and communication elements that bring forces and weapons [forms and methods] into one system. The principal objectives of NGW fought in a network-centric environment are to destroy the economic potential of a nation, defeat its main forces, and overrun its territory, using the full blend of political, information, and other measures.⁴⁵

The attacker will plan his NGW (the authors note it is an 'international armed conflict' in parentheses) in advance and make preparations to conceal the attack through disinformation.⁴⁶ For a second time the authors note that a goal is achieved only after gaining information superiority. This could be accomplished via a special operation through diplomatic or media means by the leakage of false data or instructions. Cyber attacks against communication systems will occur, where computer operators manipulate the 'intelligent machines' at a distance. Attackers will use non-military (indirect) techniques. A quantum computer may turn out to be the main tool of destruction. Speed, synchronization, and concurrency decide success or failure of operations.⁴⁷

Pressure in the form of an information operation will be applied through the media according to a joint plan, and the public will be informed of the need to restore democracy. The aggressor states will impose censorship on all media, while information the attackers find acceptable will be dispersed. Propaganda will spark discontent in the defender's population and chaos will arise. Non-lethal new-generation genetically engineered biological weapons that affect the human psyche and moods will intensify the effect of

⁴⁴Ibid., pp. 17–18.

⁴⁵Ibid., pp. 18–19.

⁴⁶Ibid., p. 19.

⁴⁷Ibid., p. 20.

propaganda and drag a country further out of control. Attempts will be made to blackmail commanders through intimidation, deception, and bribery in order to manipulate behavior. Undercover agents will encourage discontent and the commission of unlawful acts. Before the outbreak of war, non-military measures such as no-fly zones, blockades, or the use of private military companies could be applied as new methods of warfare.⁴⁸

At the start of the military phase, a large-scale reconnaissance and subversion mission will take place under the cover of information operations. All forms and methods will be used to detect and map key government and military objectives vital to the country's sustainability, and targets will be designated and fire strikes monitored. An EW knockdown may begin two hours before the start of war and continue for up to two full days. It will blend with an aerial offensive and massive launching of PGMs, UAVs, and robot-controlled weapons.⁴⁹

The actual attack will begin with an aerospace operation several days long, launched from the ground, sea, air, and space in a network-centric environment to destroy or damage an opponent's key capabilities, control centers, leaders, communications centers, and power and water supplies, and make the target country ultimately sue for peace. The enemy's disorganization will be a focus of forces in order to prevent his retaliation. Defenders must plan in advance for this eventuality. After the aerospace attack, UAVs and robotic platforms will attack.⁵⁰ The latter will collect data, coordinate operations of different arms, repair weapons, build defenses, destroy enemy hardware, clear mines, and de-activate and de-gas contaminated areas. In NGW goals will probably be achieved before ground forces are deployed. These forces may be used in special operations to mop up surviving centers of resistance.⁵¹

To summarize this 2013 article, NGW will be fought by the rules and customs of the side that is best prepared to put the recent breakthroughs in warfare economics and technologies to a practical test. The IPW will be pivotal and critical. Superiority of either side in military technologies is a hallmark of NGW. There will be a targeted information operation, an EW operation, an aerospace operation, the use of high-precision weapons, long-range artillery, and weapons based on new physical principles. The defending country's political and economic system will be made ungovernable, its population demoralized, and its key military-industrial complex facilities destroyed or damage. In the closing period the attacker will destroy remaining centers of resistance and enemy units. Fire barrages will annihilate a defender's resisting army units.⁵²

The authors add that Russia must prepare for NGW without delay. Deteriorating relations between states must be repaired, confidence-building

⁴⁸Ibid., pp. 20–21.

⁴⁹Ibid., p. 21.

⁵⁰Ibid., pp. 21–22.

⁵¹Ibid., p. 22.

⁵²Ibid., pp. 22–23.

measures and cooperation with other countries expanded, and barriers to power politics established. If nonmilitary efforts produce little effect, a country must be ready to use power containment to persuade the aggressor that his cost will be high. Russia must demonstrate its readiness through a defensive force deployed to an area of anticipated aggression. A strongly worded statement must be made as a warning of immediate nuclear retaliation against a threat to the country's sovereignty and integrity during a war and of the unrestrained use of precision weapons to destroy an enemy's nuclear power plants and hydropower projects on his territory. The preparation and conduct of an information operation to mislead an enemy about Russia's readiness could also be prepared.⁵³ Main ingredients for the success of NGW remain information superiority and anticipatory operations. A country preaching a defensive doctrine may get the short end of the deal in the face of a surprise attack by an aggressor.⁵⁴ In short, it is clear that Russia envisions fighting against an aggressor's NGW forms and methods with those of its own.

Addressing NTW in Russia: The General Staff speaks

2015: Kartapolov on new-type warfare

In the Journal of the Academy of Military Science, General Lieutenant A. V. Kartapolov, at the time the Chief of the Main Operations Directorate of the General Staff, discussed the United States' and NATO's way of war, which he termed 'new-type', and what Russia would need to do to confront it. He provided extensive graphics supporting the new character of war and discussed his concept of new-type war and potential asymmetric measures to take against it (a diagram of Kartapolov's suggested NTW template is at Appendix One). Bogdanov and Chekinov never provided such extensive graphics. The Russian media did not pick up either Kartapolov's article or his diagram for further publication in a public domain outlet such as the Military-Industrial Courier. It is not known if his talk was developed specifically for the officers, both active and retired, who attended the lecture at the Academy, but the absence of this seemingly very important diagram and explanation from the open press seems odd.

Kartapolov's article took into consideration his country's intervention into Crimea and Eastern Ukraine, two contextual issues with which Bogdanov and Chekinov did not have to contend. This resulted in more emphasis on the role NATO was playing. He stated that the 21st century had been inaugurated by a change in political leadership in some countries, and some of these changes morphed into conflict. Any conflict tends to push

⁵³Ibid., pp. 23–24.

⁵⁴Ibid., p. 24.

the development of weaponry as well as the forms and methods supporting them to new levels. As a result, the nature of armed struggle must be studied closely, along with new methods for reacting to evolving threats to Russia's security. Aggressor states now use a combination of direct and indirect actions to accomplish their goals.⁵⁵

Kartapolov stressed that a template of sorts is used by the aggressor. First, a victim state is chosen, and irrefutable proof of its threat to international security is provided. Then an information campaign unfolds to convince the international community that direct force is the only way to liquidate the threat. Finally, sanctions are introduced, pressure is used against anyone obstructing Western policies in the region, and a coalition of states is formed and prepared to use classical forms of war if necessary, which requires United Nations Security Council permission.⁵⁶ US actions in Ukraine, which Russia believes were part of a coup attempt, were stated to be a pretext for instituting a strong anti-Russia campaign. This campaign demonized an opponent [in this case, Russia], disrupted communications, formed ideological coalitions, advanced NATO and US infrastructures to Russia's borders, imposed an arms race on Russia, and manipulated energy markets, all designed to drag Russia into regional conflicts. The United States is using technologies and effects to subordinate the leadership and the elite in another country according to their will.⁵⁷

To accomplish its goals, Kartapolov claims that the United States uses non-standard or so-called hybrid actions that utilize military and nonmilitary force, and that the United States and NATO have been doing so for over 20 years. According to him, this focus changed somewhat after Russia's successful peace-enforcement operation against Georgia, to a universal approach that included diplomatic, economic, political, military, judicial, and information-psychological effects, as well as the use of internal opposition detachments and special operations forces. The United States thinks this approach can unhinge Russia's economy through the use of sanctions. These 'indirect' actions can use a 'third force', which is a force 'artificially formed, from without or within', and used to 'inflate the problems and provoke the sides into a military conflict'. Third forces can be individual countries or blocs of countries, international structures, transnational companies, separate political forces within the country, or extremist organizations. In short, they can be anyone for whom a conflict is beneficial. Meanwhile, the United States is acting in a covert manner and provoking conflict or feeding one side with money, weapons, or advisors.⁵⁸

Kartapolov stated that information confrontation issues are pushed to the front by the United States. These campaigns help destroy the foundations of a

⁵⁵A. V. Kartapolov, *op. cit.*, p. 26.

⁵⁶*Ibid.*

⁵⁷*Ibid.*, p. 28.

⁵⁸*Ibid.*, pp. 28–29.

nation's sovereignty and resolve military-political tasks for changing a country's rulers. This is accomplished most often via the falsification or distortion of information or the suppression of specific information. The leadership or population sometimes initially does not realize what is happening. Kartapolov adds that at the initial stage of such an operation, it is 'not perceived by the masses as war, since there are no clear signs of external aggression. Moreover, it is presented in propaganda materials as an attempt to avoid war'.⁵⁹ It is often difficult for the government to correctly handle peaceful demonstrations that are merely the unknowing 'front men' for the third forces acting behind them. Humanitarian, medical, social, and human rights representatives suddenly appear along with foreign agents, provocateurs, and gangs operating under cover of these various organizations. The ghost enemy that evolves has no affiliations or identifiable signs.⁶⁰ Kartapolov thus evades the use of a 'ghost enemy' by Russia, which the world viewed in Crimea in the presence of the so-called little green men of the Russian military.

New-type wars are aimed against the civilian population, with violations of human rights and standards, to include the systematic murders of those 'not one's own' and the displacement of a population from its indigenous roots, often the basic content of the war. The goal of such actions is to initiate a civil war in which a pretext is created for a foreign state to interfere/intervene. Thus, 'the employment of indirect actions and methods for a new-type war makes it possible to achieve military results ... without the employment of one's own armed forces'.⁶¹ New-type wars are never declared and never end, and world powers accomplish their new-type warfare goals on the territory of third countries. These wars are 80 percent to 90 percent propaganda and 10 percent to 20 percent violence. The main thing in direct as opposed to indirect operations, however, is the principle of dynamism in actions. The passive conduct of combat operations will lead to defeat. As a result, weapons developments are characterized by increased capabilities in intelligence, command and control, and destruction means.⁶²

To confront US strengths, Russia is relying on the development of non-standard forms and methods of employing its armed forces. Asymmetric measures are under development to level the United States' technological superiority. This requires the precise determination of the United States' most vulnerable and weakest areas against which Russia can exert maximum effect. Asymmetric measures include Special Forces operations, foreign agents, various forms of information effects, and other nonmilitary forms of effects. Such measures are usually short lived and thus require timely implementation measures. They are achieved by actions coordinated with

⁵⁹Ibid., pp. 29–30.

⁶⁰Ibid., p. 31.

⁶¹Ibid., pp. 31, 33.

⁶²Ibid., p. 33.

respect to targets, location, and time by various government organizations. Features for the preparation and conduct of a new-type war are thus underway. In particular, Russia is using the Academy of Military Science to help develop new approaches for the employment of the armed forces. The theoretical development of asymmetric and indirect measures must be studied comprehensively and included in regulations and introduced into operational training.⁶³

Conclusions

Military thought is progressing in Russia. The General Staff is now involved in the process, indicating the importance of getting things right. Currently it appears that the integration of lessons learned regarding US warfare in the Middle East, along with hybrid thought and NGW conceptualizations, have led to the NTW concept. It remains very doubtful that the progression in thought will stop here in light of the current conflicts underway with Russian involvement. As a result, Westerners should not put Russia's military thought in a box, as it is evolving and changing over time as various periods and experiences are integrated.

When considering current Western articles discussing NGW, readers should be reminded that this term is very rarely used today in the military press in Russia. A quick review of the past six years of the publication *Army Journal* (48 issues) reveals that not once was NGW a title of an article. Important figures in Russia's General Staff have highlighted a new concept, NTW, as something to follow (in fairness, since NTW was promoted in early 2015, none of the ensuing *Army Journal* articles has listed it as a title either). Readers should be contemplating how NGW and NTW might fit into Russia's overall military thought process. NGW served a purpose: to reinvigorate in Russian thought the trend that Slipchenko started more than two decades earlier. General Staff analysts clearly appear to have followed the road laid by Bogdanov, Chekinov, Slipchenko, and many other authors before developing its NTW concept. Further, Western analysts must be continuously aware that many other factors are at play for the General Staff as they contemplate the use of force. For example, President Putin's decision to follow up a target of opportunity that evolved in Crimea with the use of his military is but one example. There was no NGW concept applied as a method of weaponry, just the 'ghost enemy' of military presence. With all the chaos in Kiev, no one was in charge to challenge the Russian move.

It seems likely that lessons learned from watching US actions in the Middle East, studying Western hybrid concepts, and viewing the NGW concepts of the West provided important background thinking for the

⁶³Ibid., pp. 35–36.

General Staff to consider, which resulted in Kartapolov's article about NTW in the *Journal of the Academy of Military Science*. This is the same journal that highlighted all of Gerasimov's speeches (those speeches were presented at the Academy of Military Science first and only later published in the *Military Industrial Courier*, the paper of the military-industrial complex in Russia). The Academy offers an important gathering of both retired and active-duty military theorists at which important General Staff lectures are delivered. Interestingly, Kartapolov's speech and outline have not been published in the open press to date. Why not? Is it because this is actually how Russia is going about the conduct of contemporary war at the present time and wants to keep it from Western view? This is General Staff talk. Some material from the Academy of Military Science proceedings is published in the open press, such as Gerasimov's 2013 speech, but his speeches are the few exceptions one sees in open-source publications. The Bogdanov and Chekinov articles on NGW were very good, as they offered much material for the General Staff and other military officers to consider. When applicable, such as in this case, the General Staff can include such creative thought in its overall planning process. This integration of thought will continue. NTW may not be the last description of the evolving character of warfare.

Thus, as Western analysts continue to debate Russia's military thinking and planning, they need to continue to ponder how new concepts fit into Russia's current military thought process. This requires more intimate knowledge of Russian military thought (to include considerations of Russian forecasting, correlation of forces, and forms and methods processes) than presently shown. Simply overlapping Western concepts on Russian thinking doesn't always work. If evolving foreign concepts are not understood from their local context, then the West will always be chasing after outliers without understanding where they fit in Russia's overall theoretical and planning process.

Notes on contributor

Timothy Thomas is an analyst at the Foreign Military Studies Office (FMSO) at Fort Leavenworth, Kansas. He retired from the US Army as a Lieutenant Colonel in the summer of 1993. Mr. Thomas received a B.S. from West Point and an M.A. from the University of Southern California. He was a US Army Foreign Area Officer who specialized in Soviet/Russian studies, serving as the Director of Soviet Studies at the United States Army Russian Institute (USARI) in Garmisch, Germany, and as an inspector of Soviet tactical operations under CSCE. Mr. Thomas has done extensive research and publishing in the areas of peace-keeping, information war, psychological operations, low-intensity conflict, and political military affairs. His three books are *Dragon Bytes*, *Cyber Silhouettes*, and *Decoding the Virtual Dragon*.

Appendix One

