CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES
NSP 10 / PSN 10

Title

The Gerasimov "Doctrine"
The day the West started to fight its own shadow

By Colonel Soenke Marahrens

"Things are not always what they seem; the first appearance deceives many; the intelligence of a few perceives what has been carefully hidden."

Phaedrus, Roman, around 50 B.C

Word Count: 5033

Compte de mots : 5033

1. Introduction

The aim of this paper is to provide a structured analysis of the Russian General Gerasimov's article "The value of science in prediction"[1;2] from 2013 under the hypothesis that Gerasimov's (or his staff's) ideas are solely an enriched application of the openly published Western military concepts of the 1990-2010: Network Centric Warfare (NCW), Effect-based (Approach to) Operations (EBO/EBAO)[3] and Whole of Government approach (WoG) / Comprehensive Approach (CA).

In 2002, the German Air Force started to develop a national approach to the US Network Centric Warfare, which was later adapted by the German Joint Staff as *Vernetzte Operationsfuehrung* or Network-enabled Operations[4] as Germany's concept for 21st Century Tactical warfare. To foster the interoperability with partners, the German Armed Forces became a permanent and successful[5],[6] member of the international NCW development program led by the Office of Force Transformation under Vice Admiral Cebroswski. Parallel to the NCW efforts, the German Joint Center for Studies and Exercises lead a joint team to experiment with Effects Based (Approach to) Operations and Whole of Government/Comprehensive Approach concepts under the Multinational Experiment Series[7].

All three concepts are based on the concept of increasing (social) connectivity through modern IT technology. NCW addresses the tactical level of warfighting, EBO adds systemic thinking concepts to the operational level (forces apportionment) and Whole of

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[1] Dr. Galeotti uses a translation by Rob Coalson from 2014, (Dr Galeotti, 2014)
[2] In translated form, (Coalson, 2016)
[3] The original Term was EBO, NATO redefined it later as EBAO (Smith-Windsor, 2008). In 2008 General Mattis, then Commander of USJFCOM in Suffolk, VA, pulled back the EBO concept for the US Forces, but EBAO as a NATO concept remained valid. (Mattis, 2008)
[4] (Federal Ministry of Defense, 2006), 77
5 (Woods, 2018), Best NCW Program from a Coalition Partner German Air Force NCW SW COMMON ARRANGEMENT 04
6 (Pose, 2018) Arthur K. Cebroswki Award, LTC (GS) Soenke Marahrens Bundeswehr Transformation Centre
[7] (ACT, 2015)

Government/Comprehensive Approach binds together all elements of state powers to reach pre-defined strategic and operational goals.

In 2011 the Foreign Liaison Officers[8] at US Joint Forces Command in Suffolk, Virginia, received an unclassified briefing from the US Analysis and Joint Lessons Learnt Center on Hezbollah operations in Lebanon 2005/2006[9]. Based on the German knowledge and experience on the theoretical background of NCW, EBO and WoG/CA, the German Liaison team was immediately able to identify and qualify Royston's "*Wiki warfare"* as NCW, "*Sophisticated targeting"* as an EBO approach and his "*trans-national insurgency*" as a kind of adapted offensive Comprehensive Approach (Compare Figure 1).

Figure 1 -Terrorist to Techno-Guerilla (Royston, 2007)

In 2014, a British blogger, Dr. Mark Galeotti published on his Blog "In Moscow's Shadow - Analysis and Assessment of Russian Crime and Security"[10] an annotated translation of an article named "The value of science in prediction"[11],[12]" by the Chief of the Russian General Staff, Valery Gerasimov, published[13] in Russia in 2013. In this article General Gerasimov laid out his ideas on how he assumes the future of warfare in the 21st century will be conducted.

[8] The author of this paper was a member of the German Liaison Team to USJFCOM from 2009 until 2012 and took part in the briefing

[9] The briefing was given by Clyde Royston and it was based on his article *"Terrorist to Techno-Guerilla, The Changing Face of Asymmetric Warfare"*, (Royston, 2007).

[10] (Dr Galeotti, 2014)

[11] (Dr Galeotti, 2014)

[12] Dr. Galeotti uses a translation by Rob Coalson from 2014, (Dr Galeotti, 2014)

[13] (Gerasimov, 2013)

When we saw the article in Germany for the first time in 2014, I identified immediately indicators of the presence of NCW, EBO and CA/WoG ideas like those in the Royston article[14]. But for the first time, they were co-notated to a non-western state actor.

Without using any classified Intelligence information, I was able to identify further practical evidence of copied western concepts by following the Russian operations on the Crimea in 2014[15] and later in the Donbass area in 2014. I saw also new elements, which I couldn't assign immediately to the theoretical concepts due to their offensive nature.

This paper will provide a full analysis of the Gerasimov article in a two 2 phased approach: In Chapter Two the origins and essence of the NCW, EBO and CA/WoG concepts will be presented. This includes the deduction of appropriate parameters for the research of my hypothesis. Chapter 3 will provide a summary of Gerasimov's article as well as a summary of a full text analysis in accordance with the deducted research parameters. Chapter 4 will combine all results, answer the research question and will present an elaborate new thesis regarding the interpretation and relevance of the article.

2. Western Post Cold War Warfighting Concepts

a) A revolution in military Affairs

After the fall of the Berlin Wall and the collapse of the Warsaw Pact, Western Military planners and doctrine writers had to redefine the strategic environment from scratch. Next to the definition of a possible new world order, they had to consider the increasing digitization of the society and its possible effects on military operations. The need to do so was already formulated by Soviet[16] and US[17] military writers in the 1970s. US analysts coined it later as the *Revolution in Military Affairs*[18] with a special focus on possible changes through modern computer technologies. A process well described in Alvin & Heidi Toffler's book "War and Anti War'[19], and summarized in Alvin Toffler's thesis

[14] (Royston, 2007)
[15] (Norberg, 2014)
[16] (Metz & Kievit, 1995), 2
[17] US AirLand Battle Doctrine, (Skinner, 1988), 21
[18] Strategy and the Revolution in military affairs, (Metz & Kievit, 1995)
[19] (Toffler & Toffler, 1995)

"*the way we make war reflects the way we make wealth — and the way we make anti-war must reflect the way we make war*"[20], [21].

b) Network Centric Warfare

In 1999 Vice Admiral Cebroswki and John Garstka published an article "Network Centric Warfare – its origin and future"[22] – on how the application of modern IT technology might change the way of warfighting. Based on two case studies – the success of Walmart during the US recession in the 1990's and the approach of the New York police department to prevent small crimes through the application of linked laptops in every police car, they derived how the use of modern IT might rephrase the way of war fighting. Also in 1999, Alberts, Garstka & Stein published the book "Network Centric Warfare"[23] in which they started to formulate their ideas for use in the US military. They provided an - at that time well needed -intellectual impulse for the 1990 US ideas of the *"Revolution in military affairs[24]"* and the *Joint Vision 2010[25]*. Both, the article and the book, gained worldwide attention and almost every western military started to develop its own concept of Network Centric Warfare – like Sweden with *Network Based Defense*[26], NATO with *NATO Network Enabled Capabilities*[27] or Germany's *Network-Enabled Operations*[28].

NCW is by nature a tactical level concept with the aim of connecting all elements (sensors, command & control and effectors) on the battlefield into one info sphere which enriches the recognized pictures of every affected military leader and soldier.[29]

[20] Ibid., 2
[21] See also (Mitchell, 2009), 34 - 35
[22] (Cebrowski & Garstka, 1998)
[23] (Alberts, Garstka, & Stein, 1999)
[24] (Metz & Kievit, 1995), 5
[25] (Staff J. C., 1996), The Joint Vision 2010 addressed already Information Superiority, but lacked to understand the emerging warfighting advantages.
[26] (Sweden, 2004), 14
[27] (NATO, 2006)
[28] (Federal Ministry of Defense, 2006), 77
[29] (Alberts, Garstka, & Stein, 1999), 93-94

From today's perspective this doesn't sound very revolutionary, but it must be kept in mind that at that time the internet was just beginning:

In 1993 the internet became public[30] and only as early as in 1996 the internet gained sufficient commercial growth[31]. Services like Facebook, founded in 2004[32], and YouTube, founded in 2005[33], were in 1999 – especially through their at that time unconceivable need of storage and communication infrastructure - unthinkable.

To formulate NCW as theory Alberts developed the four tenets of NCW - also called the value chain of NCW - in his book "*Information Age Transformation*":

> *1. Robustly networked force improves information sharing.*
> *2. Information sharing and collaboration enhance the quality of information and shared situational awareness.*
> *3. Shared situational awareness enables selfsynchronization.*
> *4. These, in turn, dramatically increase mission effectiveness.* [34]

The world wide development of NCW concepts were accompanied by Alberts & Hayes book "Power to the edge"[35] in 2003, which added the missing social domain as the decisive domain to the NCW theory, which consisted so far only out of the cognitive, information and physical domains.

The main hypothesis of Cebroswki and Garstka was "*Network Centric Forces outperform non-network Centric forces*"[36], which they proved by using the NCW value chain as a framework for a couple of case studies[37]. It triggered also further academic work on agility and agile organizations, which finally resulted into a proposal for a new C2 framework.[38]

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[30] (CERN, 2018)
[31] (Zakon, 2018), 1996 Top 10 Domains by Host #: com, edu, net, uk, de, jp, us, mil, ca, au
[32] (Phillips, 2007)
[33] (Dickley, 2013)
[34] (Alberts D. S., 2002) , 7 - 8
[35] (Albert & Hayes, 2003), 14
[36] (Garstka, 2005), 14
[37] Ibid., 15
[38] (Alberts D. S., 2007)

c) Effects-based Operations

The term Effects Based Operations[39] emerged during Operation Desert Storm in 1991, when the US Air Force experimented with new systemic concepts like Warden's 5 rings theory[40]. Warden provided a more precise application of military force beyond the predominant idea of solely attrition warfare. But his ideas still lacked the anticipation of possible (collateral) damages in the social domain. Warden's system understanding was fractal[41;42] not a system-of-systems approach. His approach was useful to enhance especially conventional military air operations, but he was still not able to capture the necessary understanding of complexity for peace support or peace enforcement operations. Those types of operations are particularly sensitive against a high degree of destruction and / or losing trust by the local population. To prevent this, the joint planning process must integrate an understanding and forecasting of second and third order side effects of planned military actions. This approach demands a different approach to military thinking and planning. It requires an initial modelling of an enemy as a system of systems, consisting of nodes and relationships as a knowledge base, and it shifts the focus from attrition-based planning to implication or effects-based planning.[43]

[39] (Berg, 2006), 17
[40] (Anonymous, 2007), The indirect approach
[41] A complex geometric pattern exhibiting self-imilarity in that small details of its structure viewed at any scale repeat elements of the overall pattern.
[42] Self-identical- (Webster, fractal, 2018)
[43] (USJFCOM, 2006)

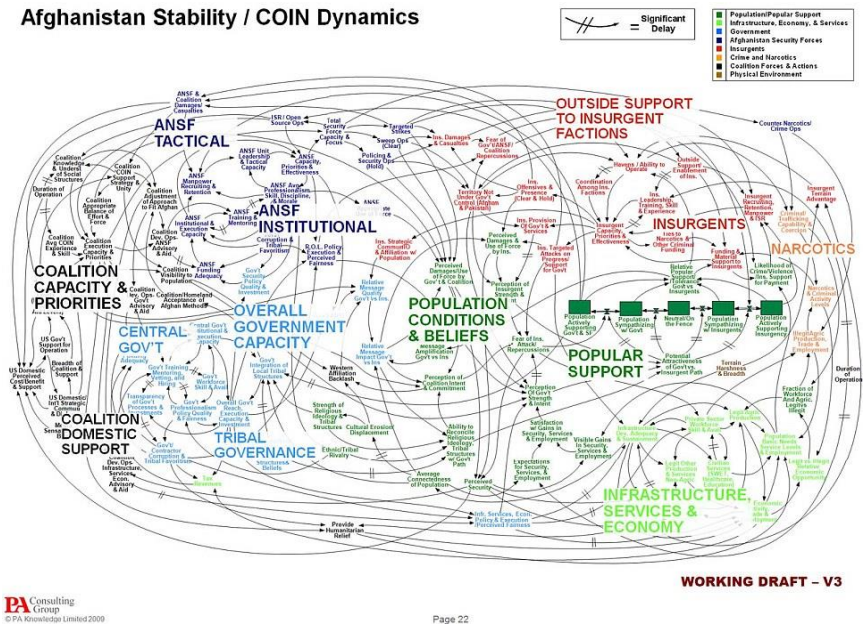

Figure 2 Afghanistan System of Systems, Source Daily Mail[44]

Therefore, concurrently to the development of the tactical level Network Centric Warfare concept, the US forces started with their allies to experiment on Effect Based Operations during the so called Multinational Experiment Series in 2001[45].

The original intellectual (and civilian social science) foundation of the system of systems concept is the theory of system thinking, which was derived from the work of the Club of Rome in 1972[46].

To apply system thinking as the foundation of Effects Based Operations, the military mission area must be described as system of systems. One method– an example is depicted in Figure 2 - is to derive the nodes[47] and their relationships through a system of systems analysis[48] in the so called PMESII[49;50] domains. After the initial system is defined, analysts and operational planners are tasked to define a target system (also called

[44] (Anonymous, 'When we understand that slide, we'll have won the war:' US generals given baffling PowerPoint presentation to try to explain Afghanistan mess, 2010)
[45] (ACT, 2015), 2
[46] (Donella H. Meadows, 1972)
[47] (Philip S. E. Farrell, 2006) p.3 - a description of the EBAO process in detail
[48] (USJFCOM, 2006), II-2
[49] Politics, Military, Economics, Social, Information and Infrastructure
[50] (Gallagher, Snodgrass, & Ehlers, 2005)

effect[51]), which would fulfill the mission – e.g. restoring peace. This resulting target (effect) system will be compared with the initial system. A delta analysis provides possible nodes/targets for actions or - to stay in the system thinking picture - the nodes and relations, where energy must be applied to change the system in a favorable and planned way. The "application of energy" is done by so called ENAR[52] chains: Effect, Node, Action and Resources. The actions are described via a DIME[53] (Diplomacy, Information, Military and Economic) matrix in which DIME resources are combined with DIME actions to change a respective node in the initial system.

d) Comprehensive Approach / Whole of Government Approach

A major finding of the experiment analysts of the system thinking experiments during MNE 2-4[54] became rather quickly, that a pure or conventional led military approach to modern operations wouldn't be sufficient for future operations. Already the PMESII and DIME ideas forced military planners to develop options beyond their military domains of air, land and sea warfare. This triggered national follow on activities, e.g. in Canada[55], to develop Comprehensive or Whole of Government approaches for conflict resolution. And US Joint Forces Command and NATO Allied Command for Transformation invited their partners to carry on with the experimentation of a common multinational Comprehensive Approach[56] concept under the umbrella of the Multinational Experiment Series during the Multinational Experiment 5 (MNE 5) [57].

The multinational team developed the following definition for CA/WoG:

> *Comprehensive Approach" will be used in a broad sense to describe the wide scope of actions undertaken in a coordinated and collaborative manner with the affected nation(s) by national and multinational civilian government agencies and possibly, military forces, international and intergovernmental organizations, non-*

[51] In Science (Webster, Effect, 2018), an effect describes a system after it was charged with an impulse or energy.
[52] (Gallagher, Snodgrass, & Ehlers, 2005)
[53] (Krenson, 2012), 3
[54] (ACT, 2015)
[55] (Hrychuk, 2014)
[56] (J9, 2009)
[57] (ACT, 2015)

> *governmental organizations and the private sector to achieve greater harmonization in the analysis, planning, management, and evaluation of actions required to prevent, ameliorate, mitigate and/or resolve the conditions precipitating the crisis.* [58]

A national insert to the multinational Comprehensive Approach[59] concept from the Canadian experimental team proves the interchangeability of the terminology of Comprehensive approach and Whole of Government: *"Canada acknowledges the complex nature of international crises, and recognizes the need for a coordinated, "whole of government" approach at the national and international level."*[60]. The published final report[61] consists of a concept description, basic principles for the application and implementation of CA. The focus of the WoG/CA concept is on Reconstruction and Stabilization[62] only, the application for peace enforcement or major combat operations is not addressed inside the concept.

Basic principles[63]	application	Implementation
	Unity of Effort:	civilian-led process
	Ownership	whole of government approach to international operations via early and high involvement by both national and multinational civilian and military communities.
	Build Local Capacity	active dialogue and information sharing
	Recognize the Political-Security-Development Nexus	The needs and concerns of the host nation
	Show Results Quickly but Stay Engaged to Build Capacity	Civilian agencies and departments lead the strategy development process.
	Flexibility - Learn and Adapt	Early civilian leadership/involvement at a high level
	Move from Reaction to	agile and flexible planning process

[58] (J9, 2009), 6
[59] This equals the definition in the Canadian Operational Planning Guide in 2008, change 2, (Staff C. o., 2008) ,2-7
[60] (J9, 2009), 4
[61] Ibid., 4
[62] Ibid., 7
[63] Ibid., 7 - 10

	Prevention	
	Match Goals and Resources	hybrid method/process to dock military campaign planning with civilian planning.
	Focus on Addressing the Sources of Conflict and Instability	

3. The Russian Approach – Gerasimov

After the derivation of the Western concepts, the following Chapter will summarize and analyse Gerasimov's article "*The value of science is in the foresight*[64]*"* in accordance with the research question. It will start with a description of the historical environment and will then provide a summary. For the sake of space, readability and structure of this document, a full text analysis and mapping of appropriate text elements to NCW, EBO and CA has been included in Appendix 2. An aggregated comparison will be provided in this chapter.

a) Background and placement on the military strategic environment

After the Russians seized the Crimea in 2014 and in parallel have started a Civil War in the Ukrainian Donbas area, Western military and political analysts have tried to make sense of observed Russian operations schemes which consisted of conventional standard (although not claimed by Russian forces) and non-standard military operations like special forces operations[65] as well as peace support operations elements like humanitarian aid convoys[66].

At the same time[67], an article titled "*The value of science is in the foresight*[68]"[69] written in 2013 by the Chief of the General Staff of the Russian Federation Armed Forces, Vladimir

[64] (Gerasimov, 2013)
[65] (Bukkvoll, 2016)
[66] (Michael & Isaac, 2014)
[67] (Dr Galeotti, 2014)
[68] Or *The value of science is in the* ***anticipation***, (Kofman & Rojansky, 2015)
[69] Translation in acc. with (Coalson, 2016), original (Gerasimov, 2013)

E. Gerasimov[70], became public in the West, in which he laid out his perceptions of war and warfare for the 21st century.

The interpretation of this article is still controversial: Bunde and Oroz[71] describe the article as a foundation of a new Russian doctrine and re-define therefore the term hybrid warfare, whereas Hoffman sees the article as a statement of "on-not-so-new-warfare"[72] and others even deny the existence of such doctrine like Charap[73], Galotti[74], Van Puyfelde[75], Bartels[76] and Duncan[77].

However, already a simple media analysis[78,79] of the 2014 Crimea and Donbass operations demonstrates, that the Russian forces have already operated in accordance with Gerasimov's ideas. They have created a new warfighting environment based on the connection of conventional, non-conventional, covert and Cyber warfare, which stayed mainly below the threshold of Art. 2.4 of the UN Charter[80].

NATO reacted as follows: *"We will ensure that NATO is able to effectively address the specific challenges posed by hybrid warfare threats, where a wide range of overt and covert military, paramilitary, and civilian measures are employed in a highly integrated design."* [81]. The EU[82], the western multinational military community[83] and the US[84] forces re-acted with similar initiatives to figure out an understanding on so called Russian

[70] (Gerasimov, 2013)
[71] (Bunde & Oroz, 2015)
[72] (Hoffman, 2014)
[73] (Charap, December 2015-January 2016)
[74] (Dr Galeotti, 2014)
[75] (Dr. Van Puyvelde, 2015)
[76] (Bartels, 2016)
[77] (Duncan, 2017)
[78] (Butenko, Smith-Spark, & Magnay, 2014) or (Michael & Isaac, 2014)
[79] (Polituk, Vukmanovic, & Jewkes, 2017)
[80] (Nations, 1945)
[81] (NATO, Wales Summit Declaration 2014, 2016), Para 13
[82] (Schultz, 2017), EU-NATO hybrid threat center launched in Finland
[83] (Cullen & Reichborn-Kjennerud , 2017), MCDC is the follow up of the MNE Campaign / (ACT, 2015)
[84] (Group, 2016), 3

hybrid threats. The term "Hybrid War" was coined by Tatiana Carayannis[85] in 2003 and was later applied to describe Hezbollah operations in Lebanon 2005/2006[86].

b) Summary of Gerasimov's article

As already mentioned, on February 27th, 2013 the *Russian Military Kurier* published an article under the name of the Russian Chief of Defense called *'The value of Science is in the Foresight – New Challenges demand rethinking the form and methods of carrying out combat operations*".[87] The article is structured in four sections with the following headlines:

1. "The Lessons of the Arab Spring"
2. "The Task of Military Science"
3. "Controlling Territory" and
4. "You cannot generate ideas on command"

and is illustrated with two graphics (see Appendix 1).

In a short introduction he states that the wars of the 21st century have morphed into something new beyond the war of former times. He notes, that a "thriving state"[88] can be driven into the abyss within a short time period. In his first section *"The Lessons of the Arab Spring"*[89] he annotates that the events of the Arab Spring might be templates for future wars although the disputes do not look like a real war for military observers. The use of non-military means is even more effective than the use of military force. He recognizes the underlying "applied methods of conflict as broad use of political, economic, informational, humanitarian, and other non-military measures" complimented by the coordinated protest of parts of the population.[90] He observes the intertwining of covert with strategic communications operations. He concludes that for a serious understanding of modern war, the application of force must be well understood. Today's military operations are agile, joint and well-orchestrated. Wars and disputes are becoming

[85] (Carayannis, 2003), 1
[86] (Dr. Van Puyvelde, 2015)
[87] (Gerasimov, 2013)
[88] (Coalson, 2016), 24
[89] Ibid., 24-25
[90] Ibid., 24

more and more continuous without any breaks, and the use of modern computer technologies enhances decision cycles. From his point of view one on one large forces engagement will become less probable; however, the battlefield will be extended all over the enemy's territory. The borders of tactical, operational and strategic operations as well as of defensive and offensive operations will blur. The application of new weapon technology like high precision ammunition or autonomous systems will change the fabric of military operations. Asymmetrical operations are seamless integrated and further developed to maintain the initiative. These developments could be observed within the US forces operations in Iraq. He sees a need for the Academy of Military Science to fill the gap between those observations and the Russian ability to understand the modern battlefield dynamics. This statement leads to the second section *"The Task of Military Science"*[91], in which he emphasizes the role of own lessons learned from World War II to modern Russian operations in Afghanistan or North Caucasus. He repeats the upcoming trends of autonomous systems and Artificial intelligence which might end into at least partly human less independent military operations. He is questioning the current approach to strategic military operations and he asks for an appropriate doctrinal review with regards to Cyber threat and offensive options especially for the newly established Air Space Defense. He defines a new actively engaging role for Russian troops within the framework of international peace support missions in order to gain a wider mobility and responsiveness even outside Russia for his troops. This must be supported by appropriate academic analysis and research.

The third section "*Controlling Territory*"[92] deals with the changing role or function of seizing or using territory within modern wars. For a modern defensive posture, the lack of a massed enemy and the existence of small well-informed reconnaissance and special-forces troops all over the operations area demand a holistic Whole of State approach to modern military operations. He states that the Russian General staff has started working with other Russian agencies to provide an appropriate new defense posture to conquer the risks of these new kind of military threats and terrorism for the homeland. From an

[91] Ibid., 26-27
[92] Ibid., 27-28

offensive perspective he marks by citing the Russian Afghanistan experience the necessity for post conflict operations as crucible. He claims that new agile formations need new sorts of command and control, which must be derived with scientific support. Furthermore, he concludes, that these new forms of conflicts and the employment of military forces needs a new thinking regarding logistics. The last section *"You Cannot Generate Ideas on Command"*[93] starts with a stocktaking of actual Russian military research capabilities. He advocates a change in the way people are selected for those jobs and also in the way the establishment is taking on the results of this research. He is citing the late Russian military thinker Georgy Isserson[94]:

> *War in General is not declared. It simply begins with already developed military forces. Mobilization and concentration are not part of the period after the onset of the state of war as was the case in 1914 but rather, unnoticed, proceed long before that.*[95]

to demonstrate the importance to listen to unconventional thinkers to prevent the worst. He concludes that future warfare will be unpredictable.

c) Matching Gerasimov's ideas with the concepts of NCW, EBO and CA

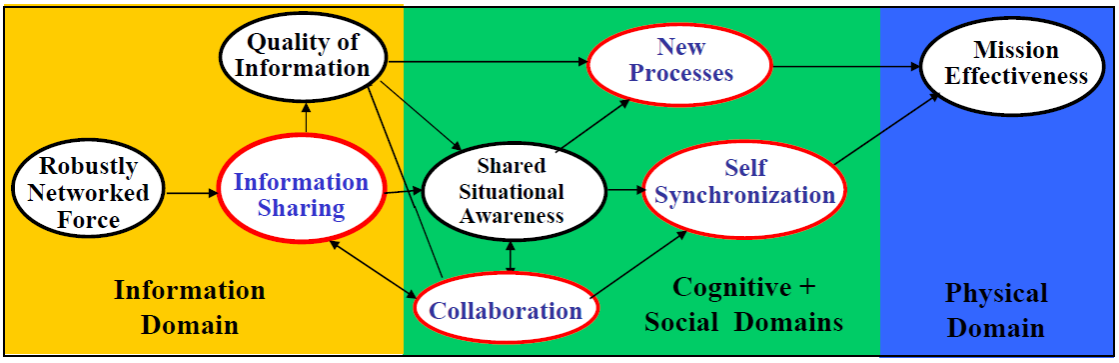

Figure 3 The value chain of NCW

[93] Ibid., 28-29
[94] (Isserson, 1940), (Isserson, 2013), Gerasimov is citing an essay, Brigade Commander Isserson published in 1940 based on his 1936 book on "The Evolution of Military Art", in which Isserson described the concept of "deep operations".
[95] (Gerasimov, 2013), cited in acc. (Coalson, 2016), 29

The in *Figure 3 The value chain of NCW* red marked items "New Processes" – introduce the emerging concepts through the networking of former not connected elements. "Self-synchronization" addresses as the cognitive and social concept of trusting a single human to act independently in the framework of a higher goal (eg. The commander's intent).

The full text analysis in Appendix 2 demonstrates, that Gerasimov addresses all aspects of the network centric value chain through developing and deploying mobile, mixed type conventional force connected in one common info sphere and integrating (networking) special forces into the conventional force and developing new processes for their engagement. He insists on the need and capability of collaboration through enhanced information sharing in a common info sphere which allows new (asymmetric - are non-standard) processes and self synchronization which finally enhances mission effectiveness. Furthermore, with his requirement for a new support system he addresses directly focused logistics[96] as one of the core concepts of implementing networking centric warfare.

With regards to Effects based operations, he describes in his example on North Africa the evidence of systems and therefore the need for systemic thinking. And he concludes later the need of a particular logic for every conflict to model every theater as system. In his argument "*The focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other nonmilitary measures—applied in coordination with the protest potential of the population*"[97], we can find the full DIME terminology.

To prove the evidence for the application of EBO concepts by the Russian Forces, the following DIME matrix was created from available Media News only:

11 March 2014 "Little green men" or "Russian invaders"?[98]
03 April 2014 UPDATE 3-Russia raises gas prices for Ukraine by 80 percent[99]

[96] The term Focused Logistics was introduced by the US with the Joint Vision 2010, (Staff J. C., 1996), 24, but also used by the NCW community (Alberts, Garstka, & Stein, 1999), 44
[97] (Coalson, 2016), 24
[98] (Shevschenko, 2014)
[99] (Reuters, 2014)

15 March 2014 - UN Security Council action on Crimea referendum blocked[100]
10 April 2014 Russia fuels Ukrainian crisis with disingenuous diaspora politics[101]
15 August 2014 Aid or invasion? Question looms as Russian convoy nears Ukraine[102]
12 May 2015 Scores of Russian soldiers killed in east Ukraine: opposition report[103]
29 February 2016 Ukraine power 'hack attacks' explained[104]
22 December 2016 Russian hackers tracked Ukrainian artillery units using Android implant: report [105]
9 May 2017, In 2014, Russian propaganda actively labeled Ukrainians as fascists[106].

By sorting them under the EBO approach, ENAR chains can be re-engineered.

Action Ressource	Diplomacy	Information	Military	Economics
Diplomacy	Support Internal opposition UNSCR blocking	X		
Information	X (support of local politicians)	X (hacking,propaganda)	X (hacking of military units)	X (hacking of powerplants)
Military	Special forces Aid convoys Green men	**X (attacks on UKR military**	**X military confrontation**	Aid convoys
Economics		X		Gas price raise

Table 4 Illustration of a possible Russian DIME matrix on Ukraine based on real world news.

A symmetric or conventional choice in table ***Error! Reference source not found.*** would be the use of the field *military actions* with *military resources*, which is, however, strictly regulated under the UN Charter[107] Art 2,4.

[100] (UN, 2014)
[101] (Satzewich, 2014)
[102] (Michael & Isaac, 2014)
[103] (Tsvetkova, 2015)
[104] (Vallance, 2016)
[105] (Volz, 2016)
[106] (Zoria, 2017) #Ukraine

By moving their operations from the military sphere (military action and resources) into the other fields, like the info sphere (the information column) and blocking any security council regulation with a veto (diplomatic actions) via their UN representatives (diplomatic) the Russian operations became asymmetric relative to previous operations.

The concept of Comprehensive or Whole of Government approach can be identified on two different levels, first via the choice of nonmilitary rather than military approaches through the EBO concept and second by his arguments regarding the federal law "On Defense[108] and the lack of the necessary interministerial facilitation as well as his reminiscence to operations in Afghanistan with a need to define the "*limits of the use of the Armed Force"* [109]. Also the two graphics inside the article (Appendix 1) provide clear evidence of NCW, EBO and CA terminology like "*command- control of forces and assets in a unified information space*"[110], "simultaneous effects on line-units and enemy facilities through the entire depth of his territory"[111] and "Correlation of non military and military measure 4:1"[112].

[107] (Nations, 1945)
[108] Ibid., 27
[109] Ibid.
[110] c 25
[111] Ibid.
[112] Ibid., 28

4. Conclusion – Hybrid Warfare - Hunting a Chimera

The analysis was conducted to prove / or disprove the hypothesis that Gerasimov's (or his staff's) ideas are an enriched application of the openly published Western military concepts of the 1990-2010: Network Centric Warfare (NCW), Effect-based (Approach to) Operations (EBO/EBAO) and Whole of Government approach (WoG) / Comprehensive Approach (CA).

As shown in Chapter 3, the presence of the Western concept could be proven. However, the initial argument of an enriched application of the three concepts can not be maintained or supported via the analysis.

Gerasimov is simply applying all three concepts holistically on domestic homeland defense as well as on foreign related affairs interventions into other countries. NCW, EBO and CA were by the nature of the most probable western conflicts during their emergence between 1995 and 2008 only applied to expeditionary warfare under the dominant maneuver concept[113].

Additionally, in contrast to the initial hypothesis of an enriched application of the three concepts, it became rather salient how often Gerasimov bashes[114] in his article the Academy of Military Science for a need of new results. Although he concedes: "I am not the one who said it is not possible to generate ideas on command"[115], he insists on "*We must not copy foreign experience and chase after leading countries, but we must outstrip them and occupy leading positions ourselves.*"[116] He addresses a couple of research fields like "understanding of asymmetrical forms and means"[117], design of the new airspace system[118], all mentioned aspects in his graphics (Appendix 1)[119], modern decision

[113] (Staff J. C., 1996), Joint Vision 2010 P 1 but also JV 2020, (Staff J. C., 2000). 59
[114] Also noticed by Dr Galeotti, who adds in his annotated Gerasimov article directly after Gerasimov's remarks in Para 4 after "a lack of military thinkers like Isserson: "Ouch. Who is he slapping here?"
[115] (Coalson, 2016)
[116] (Gerasimov, 2013), cited in acc. (Coalson, 2016), 29
[117] Ibid., 25
[118] Ibid., 26 -27
[119] Ibid., 27 He even concludes Para 2 *"The Task of Military Science"* with the statement: "All this [the elements of figure 2] demands academic preparation"

making[120] and logistics[121]. And his final phrase[122] ”*I am confident that the close ties between the Academy of Military Science and the General Staff of the Armed Forces of the Russian Federation will in the future be expanded and perfected”* sounds more like a threat than an encouragement to the Academy.

As presented in the paper, Gerasimov’s ideas can be traced back into publications of the three western concepts of NCW, EBO and CA. It is striking, how clear all aspects of NCW and EBO are pictured, whereas the argumentation regarding CA/WoG is more abstract.

The analysis might also be fraught with risks – one risk was addressed by Bartels in his article[123] *“Getting Gerasimov right”*, when he states that the normal release channel for an article like this would be the General Staff’s own paper journal *“Voyennaya Mysl (VM) (Military thought)”* instead of the privately owned *Voyenno-Promyshlennyy Kurier.*[124] The document therefore has no official character like a doctrine or a regulation, however it was used in the West as the trigger for the discussion about Russian Hybrid threats. Another risk might be, that the analysis is built on a translation and not the original Russian text and wording. The translator could have used “common” western military terminology for his translation. But the already cited “*We must not copy foreign experience and chase after leading countries*”[125], indicates with a high degree, that Gerasimov used the western terminology to make his points.

What let me to an elaboration of the importance of my hypothesis is the sequencing of events. If the findings are accurate, then the actual Western discussion on Russian hybrid threats might be based on a wrong assumption.

The paper concludes that the article was written based on Western knowledge published before 2013 whereas the connections between Russian hybrid threats and Gerasimov’s

[120] Ibid.
[121] Ibid., 28
[122] Ibid., 29
[123] (Bartels, 2016), 31
[124] Ibid.
[125] (Gerasimov, 2013), cited in acc. (Coalson, 2016), 29

article were drawn by Western analysts after the publication and in many cases even after the events in Ukraine in 2014.

In this time-based context Gerasimov's already cited statement becomes even more important: "*We must not copy foreign experience and chase after leading countries, but we must outstrip them and occupy leading positions ourselves.*"[126].

If the hypothesis of this paper is indeed true - that his whole article and therefore his ideas are simply based on western concepts with a lack of an independent Russian Academic Scholarship, then the whole Western discussion on the existence of Russian Hybrid Warfare might be a chimera.

Instead of recognizing that the Russians were in 2013 still trying to catch up intellectually with the West, Western analysts have misled themselves by assuming the emergence of a new Russian strategy or doctrine which they furthermore connected erroneously to the different - but also Western - concept of "hybrid" warfare.
Further evidence for this elaboration can be found in the already cited Bartels article, in which he states

> *No matter what reason the article was published, it is important to keep in mind that Gerasimov is simply explaining his view of the operational environment and the nature of future war, and not proposing a new Russian way of warfare or military doctrine, as this article was likely drafted well before the start of the Maidan protests*[127].

He continues that the Russian military doesn't even use the term "hybrid warfare.[128] A fact backed up by the Canadian intel officer Andrew Duncan, who states in his 2017 article "New 'Hybrid War' or Old 'Dirty Tricks'? The Gerasimov Debate and Russia's Response to the Contemporary Operating Environment "*Specifically, the concept of hybrid war is a Western concept not present in Russian military thought, and therefore, does not adequately capture Russian perspectives and practices."* [129].

[126] (Coalson, 2016), 29
[127] (Bartels, 2016), 31
[128] Ibid., 34
[129] (Duncan, 2017), 6

Bartels, a Russian linguist with an MA in Russian and Eastern European Studies, replaces the Western misconception of hybrid warfare with a Russian threat analysis of Western actions before the Ukraine conflict[130]. Whereas Duncan[131] assumes that the Western discussion oversees or neglects the application of three traditional Russian military concepts named “Deep operations”, “Active measures” and “Reflexive Control”.

Both Bartels and Duncan agree upon a lack of taking a Russian perspective in the Western discussion, which is supported by the author of this paper. However, from the analysis of this paper, both authors are missing also the point: Russia applied simply Western concepts of NCW, EBO and CA/WoG in Ukraine.

We – the West – do not face a new “hybrid” threat, we have just been confronted with our ideas.

[130] (Bartels, 2016)
[131] (Duncan, 2017), 6

Appendix 1

Illustrations from the Gerasimov Article

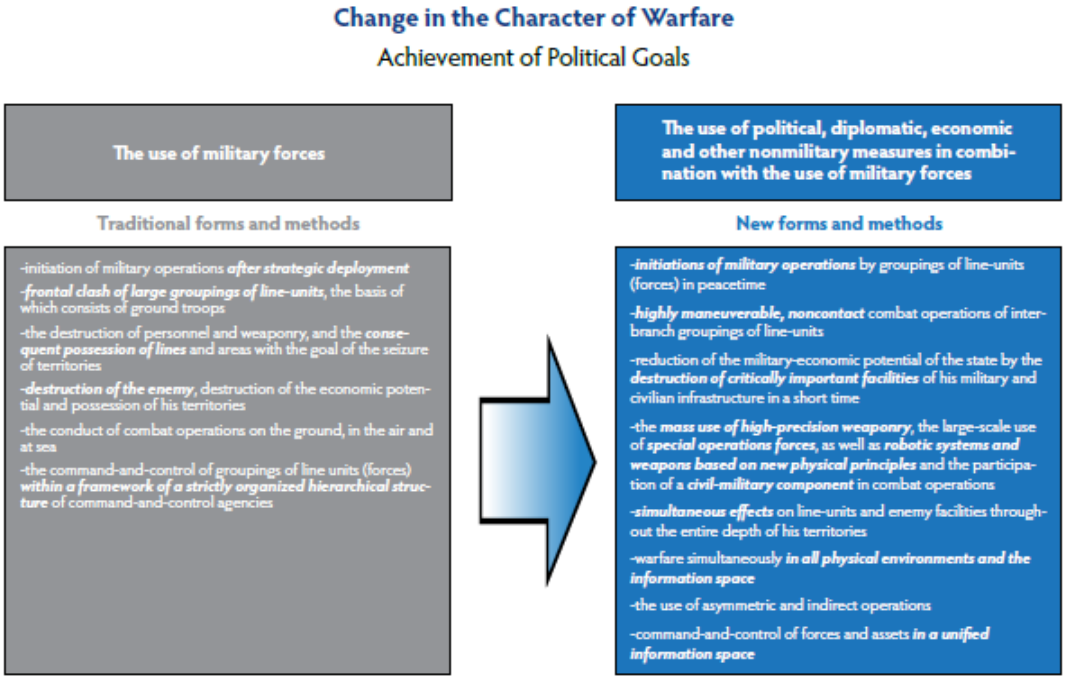

Figure 1. Graphic from Gerasimov article in *Voyenno-Promyshlennyy Kurier*, 26 February 2013, translated by Charles Bartles

Source (Coalson, 2016), 25

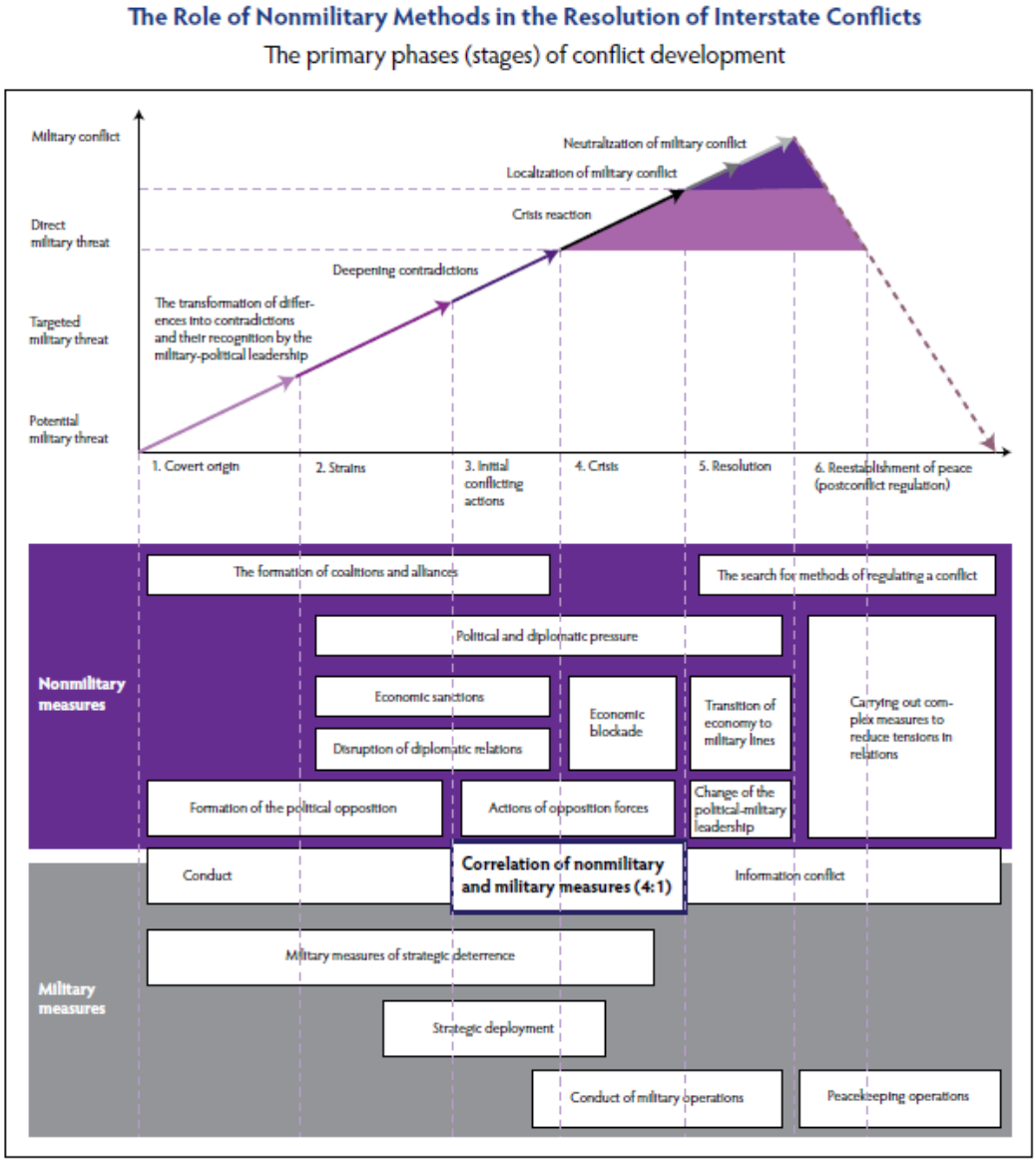

Figure 2. Graphic from Gerasimov article in *Voyenno-Promyshlennyy Kurier*, 26 February 2013, translated by Charles Bartles

Source (Coalson, 2016), 28

Appendix 2

Full text analysis of Gerasimov's article with regards to aspects NCW, EBO and CA/WoG. Text on the right side is in chronological of the article[132].

NCW	NCW Value Chain
supplemented by military means of a concealed character, including carrying out actions of informational conflict and the actions of special operations forces.	robust networked forces; new processes
together with traditional devices, nonstandard ones are being developed.	new processes
The role of mobile, mixed-type groups of forces, acting in a single intelligence-information space because of the use of the new possibilities of command-and-control systems, has been strengthened.	info sharing , collaboration
Military actions are becoming more dynamic, active, and fruitful. Tactical and operational pauses that the enemy could exploit are disappearing. New information technologies have enabled significant reductions in the spatial, temporal, and informational gaps between forces and control organs.	mission effectiveness, shared situational awareness, information quality of information sharing, self synchronization
The application of high-precision weaponry is taking on a mass character. Weapons based on new physical principles and automatized systems are being actively incorporated into military activity	robust networked forces; new processes
In 2003 during Operation Iraqi Freedom, military operations were conducted in accordance with the so-called Single Perspective 2020 [Joint Vision 2020].	Reference to Western concepts
The United States is also enacting the principles of the doctrine of global integration of operations aimed at creating—in a very short time—highly mobile, mixed-type groups of forces.	whole value chain
, is connected with perfecting the forms and means of applying groups of forces.	new processes

[132] (Coalson, 2016)

The information space opens wide asymmetrical possibilities for reducing the fighting potential of the enemy.	shared awareness, mission effectiveness
. It is necessary to research the integrated capabilities and combined potential of all the component troops and forces of these groupings. The problem here is that existing models of operations and military conduct do not support this.	new processes
Changes in the character of military conflicts, the development of the means of armed engagement and of the forms and methods of applying them, have created new demands for multifaceted support systems.	foused logistics
EBO	**EBO aspects**
The role of nonmilitary means of achieving political and strategic goals has grown, and, in many cases, they have exceeded the power of force of weapons in their effectiveness [see figure 1]. The focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other nonmilitary measures—applied in coordination with the protest potential of the population.	expanding options beyond military
Among such actions are the use of special operations forces and internal opposition to create a permanently operating front through the entire territory of the enemy state, as well as informational actions, devices, and means that are constantly being perfected.	Actions - Military military plus Diplomacy plus Information actions
In recent conflicts, new means of conducting military operations have appeared that cannot be considered purely military. An example of this is the operation in Libya, where a no-fly zone was created, a sea blockade imposed, and private military contractors were widely used in close interaction with armed formations of the opposition.	Military objectives fulfilled by non military means

The open use of forces—often under the guise of peacekeeping and crisis regulation—is resorted to only at a certain stage, primarily for the achievement of final success in the conflict.	Military actions with military resources
Asymmetrical actions have come into widespread use, enabling the nullification of an enemy's advantages in armed conflict.	neutralizing military effectivity through non military dime actions
We must acknowledge that, while we understand the essence of traditional military actions carried out by regular armed forces, we have only a superficial understanding of asymmetrical forms and means.	non military dime elements
The information space opens wide asymmetrical possibilities for reducing the fighting potential of the enemy.	neutralizing military effectivity through non military dime actions - here information
In North Africa, we witnessed the use of technologies for influencing state structures and the population with the help of information networks. It is necessary to perfect activities in the information space, including the defense of our own objects [objectives].	system of systems thinking
It is becoming increasingly important in modern conflicts to be capable of defending one's population, objects [objectives], and communications from the activity of special operations forces, in view of their increasing use.	defending own system from non military actions
, "It is extraordinarily hard to predict the conditions of war. For each war it is necessary to work out a particular line for its strategic conduct. Each war is a unique case, demanding the establishment of a particular logic and not the application of some template."	modelling a system for every conflict region
CA	**basic principles**
The operation to force Georgia to peace exposed the absence of unified approaches to the use of formations of the Armed Forces outside of the Russian Federation.	unity of effort

Although the additions to the federal law "On Defense" adopted in 2009 allow the operational use of the Armed Forces of Russia outside of its borders, the forms and means of their activity are not defined. In addition, matters of facilitating their operational use have not been settled on the interministerial level. This includes simplifying the procedure for crossing state borders, the use of the airspace and territorial waters of foreign states, the procedures for interacting with the authorities of the state of destination, and so on.	civilian lead, need for CA
It is necessary to coordinate the joint work of the research organizations of the pertinent ministries and agencies on such matters.	interagency
After all, the task of a peacekeeping force is to disengage conflicting sides, protect and save the civilian population, cooperate in reducing potential violence, and reestablish peaceful life.	building local capacity , recognize the political security development nexus
It is becoming increasingly important in modern conflicts to be capable of defending one's population, objects [objectives], and communications from the activity of special operations forces, in view of their increasing use.	building local capacity
Now, countering diversionary-reconnaissance and terroristic forces can only be organized by the complex involvement of all the security and law-enforcement forces of the country.	focus on addressing the sources of conflict and instability
On Defense." Since the adoption of that law, it is necessary to define the system of managing territorial defense and to legally enforce the role and location in it of other forces, military formations, and the organs of other state structures.	move from reaction to prevention
We need well-grounded recommendations on the use of interagency forces and means for the fulfillment of territorial defense; methods for combating the terrorist and diversionary forces of the enemy under modern conditions.	flexibility - learn and adapt

The experience of conducting military operations in Afghanistan and Iraq has shown the necessity of working out—together with the research bodies of other ministries and agencies of the Russian Federation—the role and extent of participation of the armed forces in postconflict regulation, working out the priority of tasks, the methods for activation of forces, and establishing the limits of the use of armed force.	implementation, match goals and resources

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