

UKRAINIAN ARMY CAPABILITIES TO MEET NORTH ATLANTIC  
TREATY ORGANIZATION STANDARDS

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## ABSTRACT

UKRAINIAN ARMY CAPABILITIES TO MEET NORTH ATLANTIC TREATY ORGANIZATION STANDARDS, by LTC Oleh Hubko, 115 pages.

Since the Russian annexation of Crimea in 2014 and the start of the conflict in the Eastern Ukraine, Ukrainian society has completely accepted the idea to change National Foreign Policy vector towards the Euro-Atlantic integration. Short terms were determined by the Ukrainian government to conduct respective reforms, and the Ukrainian Armed Forces received the task to modernize according to the NATO standards requirements. Interoperability with the Alliance became priority number one for the Ukrainian Defense sector. This Thesis discusses the ability of Ukrainian Army to meet NATO standards by the analysis of the Ukrainian Army participation in processes of its integration towards the NATO standards during the period of Ukrainian independence, the issues in gaining interoperability with NATO, and an influence of the conflict in Eastern Ukraine on the processes of the Army transformation.

## TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE .....	iii
ABSTRACT.....	iv
TABLE OF CONTENTS.....	v
ACRONYMS.....	vii
ILLUSTRATIONS .....	ix
TABLES .....	x
CHAPTER 1 INTRODUCTION .....	1
Background.....	3
The Research Problem.....	7
The Purpose Statement and Research Questions.....	8
Studies Addressing the Problem.....	11
Assumptions.....	12
Definition of Terms .....	12
Limitations.....	16
Scope and Delimitations .....	16
Significance of Study.....	17
CHAPTER 2 LITERATURE REVIEW .....	19
NATO Role for Ukraine in the System of European Security .....	20
PfP Program value for Ukraine.....	23
OCC E&F Program.....	26
Gaining Interoperability.....	29
DOTMLPF-I Framework.....	37
Summary.....	39
CHAPTER 3 RESEARCH METHODOLOGY .....	40
Introduction.....	40
Data Collection and Research Design .....	40
Data Analysis and Synthesis.....	42
Summary.....	47
CHAPTER 4 ANALYSIS .....	48

Introduction.....	48
Part 1: Analysis of Ukrainian Army Participation in the NATO PfP Program .....	50
Multinational Exercises under the NATO PfP Program.....	51
The Ukrainian Army Participation in the PARP.....	59
The Ukrainian Army Role in the NATO Peacekeeping Operations.....	65
Part 2: The Gaps on the Way to Gaining Interoperability .....	68
Doctrine.....	68
Training.....	73
Material.....	77
Part 3: The Influence of the Conflict in Eastern Ukraine on the Ukrainian Army's Integration with NATO.....	79
Doctrine.....	80
Training.....	82
Material.....	84
Summary and Conclusions .....	86
 CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS .....	 87
Introduction.....	87
Interpretation of Findings .....	88
Recommendations.....	90
Summary and Conclusions .....	93
 APPENDIX A TRAINING TASKS FOR THE UKRAINIAN ARMED FORCES TO 2020.....	 95
 APPENDIX B HIERARCHY OF THE NATO EVALUATION AND TRAINING DIRECTIVES .....	 96
 APPENDIX C WORKING DEFINITIONS OF THE LINES OF DEVELOPMENT .....	 97
 BIBLIOGRAPHY.....	 98

## ACRONYMS

AFS	ACO Forces Standards
AP	Allied Publication
CBRN	Chemical Bacterial Radiological Nuclear
CIS	Commonwealth of the Independent States
CPX	Command-Post Exercises
CREVAL	Combat Readiness Evaluation
EU	European Union
FTX	Field Training Exercises
IPAP	Individual Partnership Action Plan
ISAF	International Security Assistance Force
KFOR	Kosovo Force
MAP	Membership Action Plan
NAC	North Atlantic Council
NACC	North Atlantic Cooperation Council
NATO	North Atlantic Treaty Organization
NCS	NATO Command Structure
NEL	NATO Evaluation
NRF	NATO Response Forces
NSDD	NATO Standardization Document Database
NTL	NATO Task List
OCC	Operational Capability Concept
OCC E&F	Operational Capability Concept Evaluation & Feedback Program
OSCE	Organization for Security and Cooperation in Europe

PARP	Planning and Review Process
PfP	Partnership for Peace Program
PoF	Pool of Forces and Capabilities
SAC	Strategic Airlift Capabilities
SEL	Self-evaluation
SME	Subject Matter Expert
SOFA	Status of Forces Agreement
STANAG	Standardization agreement
TOPFAS	Tools for Operations Planning Functional Area Services
UN	United Nations

## ILLUSTRATIONS

	Page
Figure 1. The Ukrainian – NATO Exercises Conducted during 1994-2004.....	53
Figure 2. The Ukrainian – NATO Exercises Conducted during 2005-2009.....	55
Figure 3. The Number of the Ukrainian Military Personnel Participating in Multinational Exercises during 2005-2013 .....	58
Figure 4. The Ukrainian Army Participation in Peacekeeping Operations.....	66
Figure 5. The Ukrainian Armed Forces Training Funding during 2005-2014 (in millions of Ukrainian hryvnas) .....	75

## TABLES

	Page
Table 1. Self/NATO Evaluations of Ukrainian Army Units Declared for PARP .....	63
Table 2. The Process of NATO Standardization in the Ukrainian Army during 2016-2017 .....	71

## CHAPTER 1

### INTRODUCTION

Ukrainian societal opinions have been transforming, first starting in the beginning of 1990s, from a feeling of repulsion for the Euro-Atlantic Security Organizations to the current full understanding of their benefits to support the national interests of Ukraine. After the Soviet Union collapsed 27 years ago, the question of joining the European Union (EU), and the North Atlantic Treaty Organization (NATO) were the most discussed in Ukrainian society.

Ukraine's uniqueness gives it a real chance to join the Euro-Atlantic Security Organizations. These advantages are: the geopolitical position of Ukraine, common or shared European culture traditions, the demographics of its population, its economic potential, and the significant possibility of it strengthening NATO power in the European Theatre.

A lot of important political steps of the young Ukrainian state led to its international recognition and authority reinforcement as an essential element of European stability and security. These actions included: voluntary renunciation of nuclear potential, which was then third in the world, and significant reduction of the armed forces Ukraine got from the Soviet Union. These steps have improved the status of Ukraine as a reliable and predictable partner in the international arena.

Meaningful results were achieved during the reformation of the state military organization. Essential steps were taken to achieve Ukrainian Armed Forces interoperability with the Western standards according to the national economical capabilities. Important laws were accepted to improve the structure of the Armed Forces,

increasing its capabilities and arrangement of its strength. In addition to this, Ukraine continued to hold one of the leading positions in numerous hi-tech domains in spite of its difficult sociopolitical situation.

However, for the future development of Ukrainian foreign policy towards the Euro-Atlantic integration, it is very important to analyze the errors that were made and the disagreements that became obstacles to Ukraine joining the Euro-Atlantic Security Organizations, as well as to determine and examine the ways to resolve already existing problems.

The current situational analysis shows that the authorities often do not understand the peculiarity of the Euro-Atlantic integration process. For a long time, there was the illusory idea that integration into the European Union was possible without joining NATO. There was no understanding of the importance of the interconnection of the processes of Euro-Atlantic integration. For a fairly long period of official use, the term “Euro-Atlantic integration” was even deleted. However, the simultaneous expansion of NATO and the EU and the fact that all post-socialist countries were entering or seeking to enter the two organizations confirms the fallacy of such an idea. The old Soviet Union system still has an influence on minds of the older generation in both Ukrainian political and military authorities that slows down the integration process. Non-realistic terms and tasks that are not possible to execute without accepting appropriate regulations act to the detriment of the achieved success. As the Ukrainian Armed Forces are under extreme pressure from Ukrainian National Policy, these processes have a significant influence to its integration into NATO.

## Background

After the Soviet Union collapsed, Ukraine chose a so-called “multi-vector” foreign policy and a “non-bloc” status of national defense strategy that were reflected at both friendly relations with the Russian Federation and the simultaneous proclamation of Ukraine’s course towards NATO and European integration. The liberal policy of the second Russian president, Boris Eltsin, and his attempts to make friends with the West triggered the “multi-vector” foreign policies for most other Post-Soviet Union countries as well. As a result, after proclaiming their independence, former Soviet republics started the process of cooperation with NATO by joining the NATO Partnership for Peace program (NATO PfP). Ukraine started that process in 1994.

Attempts to connect reciprocal sides by following the “multi-vector” foreign policy of Ukrainian government created a collision of interests between Russia as a Soviet Union follower and the European Union as a part of NATO. Ukraine became a buffer zone for the potential confrontation of the democratic and post-socialist authorities.

For the first time at an official level, the intention of Ukraine to join the North Atlantic Alliance was announced on May 23, 2002 at a meeting of the National Security and Defense Council. It was the first attempt to change the Ukrainian policy vector towards Euro-Atlantic integration. The second President of Ukraine, Leonid Kuchma, announced: “We know that nobody has ever fought inside NATO. And I want us to never fight - that's the main goal of our policy. This is a pragmatic goal. This is in the interest of

all Ukrainians because you will not build European security without Ukraine.”<sup>1</sup> As a result, the following strategic documents were accepted: The Decision of the National Security and Defense Council of Ukraine (May, 2002) and Decree of the President of Ukraine (July, 2002) “About the Strategy of Ukraine towards the North Atlantic Treaty Organization.”<sup>2</sup>

These actions of the Ukrainian authorities could not leave the Kremlin aside. The first check of the Ukrainian authorities and Armed Forces readiness to resist foreign aggression took place in September 2003 by a Russian attempt to seize Tuzla Island in the Kerch Strait between the Azov Sea and the Black Sea. The agreement between the Ukrainian President, Leonid Kuchma, and the Russian President, Vladimir Putin, concerning the status of the island stopped the conflict<sup>3</sup>, but had a result of temporarily decreasing Ukrainian-NATO integration activity. The unofficial status of such relations existed for the next 10 years until the Ukrainian Revolution of Dignity happened. However, the loyalty of the Ukrainian population towards NATO and the EU significantly increased as people started to understand the threat from the Eastern border. Thus, according to the results of the Gorshenin Institute research in cooperation with Friedrich Ebert Foundation, the support of the EU integration by the Ukrainian

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<sup>1</sup> Ivan Kapsamun and Nikolay Siruk, *Україна – НАТО. Невикористані шанси* [“Ukraine – NATO: Unused Odds”], *deHb.kiev.ua*, September 2015, accessed 26 February 2018, <http://m.day.kyiv.ua/uk/article/den-planety/ukrayina-nato-nevykorystani-shansy>.

<sup>2</sup> Ibid.

<sup>3</sup> Krymology, *Конфликт вокруг Тузлы (2003)* [“The Conflict Around Tuzla 2003”], accessed 26 February 2018, [http://krymology.info/index.php/Конфликт\\_вокруг\\_Тузлы\\_\(2003\)](http://krymology.info/index.php/Конфликт_вокруг_Тузлы_(2003)).

population increased from 28.4 percent in February, 2008 to 51.6 percent in July, 2017 with its peak at 63.6 percent in October, 2014. Support of joining NATO also grew from 18.9 percent in February 2008 to 46.1 percent in July, 2017 with its peak at 54.1 percent in February, 2015.<sup>4</sup>

After the pro-Kremlin President of Ukraine, Victor Yanukovich, tried to change the policy vector toward Russia by refusal to sign an Association Agreement with the European Union in 2013, the Ukrainian population started the revolution that was called the Revolution of Dignity. Understanding that Russia had lost its influence over Ukraine, the Russian President Vladimir Putin initiated the Russian-Ukrainian War in the beginning of 2014 with attempts to influence Ukrainian foreign policy against Euro-Atlantic integration. The following events have proved these actions a great mistake as they have had the opposite result.

The Russian aggression against Ukraine, reflected in the Crimean occupation and combat actions in Eastern Ukraine, specifically the Donbass region, have completely destroyed previously close relations between the two neighboring countries. The consolidated Ukrainian society has wholly committed its choice to follow the principles of Euro-Atlantic integration by attempting to join the European Union and NATO. However, the time had been wasted, and Ukraine now has to renew its cooperation with NATO.

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<sup>4</sup> Gorshenin Institute in Cooperation with Friedrich Ebert Foundation, *Звіт за результатами соціологічного дослідження “Українське суспільство та європейські цінності [Report on the Results of a Sociological Study “Ukrainian Society and European Values”]* (Kyiv, Ukraine: Gorshenin Institute and Friedrich Ebert Foundation, 2017).

On December, 2014 the Ukrainian Parliament accepted the bill that invalidated the “non-bloc” status of Ukraine as a security measure against Russian aggression. It opened new horizons for Ukraine concerning its approach towards NATO and European security. Later on, the Ukrainian Parliament, known as Verhovna Rada determined the necessity to accelerate processes of the new strategic course implementation – joining NATO and the European Union.

During 2014-2015, nine NATO defense advisers were sent to the Ukrainian NATO Liaison Office with the following tasks: advisory assistance in the preparation of the new National Security Strategy of Ukraine, comprehensive assessment of Ukraine’s security and defense sector, development of strategy to achieve the maximum level of the interoperability between Ukrainian and NATO forces, and implementation of the NATO standards in the military. A gradual transition to be completed in 2019 to NATO military standards (STANAG) is expected according to the Coalition Agreement within the Armed Forces reform.<sup>5</sup>

During the NATO Summit in 2015 the President of Ukraine Petro Poroshenko announced that current relations between Ukraine and NATO were at the highest level. He also declared the intention to gain full interoperability between the Armed Forces of Ukraine and NATO before 2020.<sup>6</sup>

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<sup>5</sup> Gorshenin Institute in Cooperation with Friedrich Ebert Foundation, *Report on the Results of a Sociological Study “Ukrainian Society and European Values.”*

<sup>6</sup> The Ministry of Defence of Ukraine, *Україна та НАТО посилюватимуть партнерство – зустріч Петра Порошенка та Єнса Столтенберга* [“Ukraine and NATO will increase cooperation – the meeting of Petro Poroshenko and Jens Stoltenberg”], 2015, accessed 04 November 2018,

## The Research Problem

Facing the challenges of resisting a stronger enemy, Ukraine has been making an attempt to increase its defense potential in all possible ways. In the author's opinion, the Ukrainian authorities' attempts to find fast solutions for the "New Armed Forces" behind the declaration that Ukrainian Armed Forces could achieve the level of the NATO members' forces in less than 5 years. But, the existing Ukrainian Armed Forces system of "Soviet Style School" that was supported by its previous "friend" – the Russian Federation – has created a huge gap between the desire to become "the same as the NATO countries" as fast as "tomorrow", and the reality of the current Ukrainian military capabilities. According to information from the annual official reports of the Ministry of Defense of Ukraine, the part of collective training events in Ukraine with the participation of the Armed Forces of Russian Federation and Belarus was significant and before the Revolution of Dignity in Ukraine (2013-2014) had increased up to 40 percent.<sup>7</sup> Additionally, until the Crimean annexation and the Donbass conflict in 2014, the military educational system had not undergone any significant changes from the time of the Soviet Union. Therefore, tactics, techniques and procedures along with elements of operational art were based on old manuals and doctrines written before the Soviet Union's collapse or translated into the Ukrainian language from Russian with zero changes.

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<http://www.mil.gov.ua/news/2015/12/17/ukraina-ta-nato-posilyuvatimut-partnerstvo-%E2%80%93-zustrich-petra-poroshenka-ta-ensa-stoltenberga--/>.

<sup>7</sup> The Ministry of Defence of Ukraine, *White Book 2013: The Armed Forces of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2014), accessed 09 January 2019, [http://www.mil.gov.ua/content/files/whitebook/WB\\_2013\\_eng.pdf](http://www.mil.gov.ua/content/files/whitebook/WB_2013_eng.pdf).

The comparatively slow transition towards the standards of NATO in the Ukrainian military created a doubled military system in which the old system continued to exist in conflict with the new system. So, while providing S, G, J-structured staff according to the NATO requirement, others structures such as Logistic and Rear support services continue functioning. Duplication of functions, structures, and procedures in the all spheres of the Armed Forces resulted in conflicts and doubts inside the Ukrainian military concerning the possibility of the national Armed Forces ability to meet required standards in a relatively short period of time.

Focusing on the research of Army capabilities within the Ukrainian Armed Forces structure, the following research problem was stated:

Is the Ukrainian Army able to achieve the accepted NATO standards and gain the required level of interoperability in a short period of time while under the pressure of existing issues, such as the legacy Soviet-style military system, the slow rate of reformation processes, and the conflict in Eastern Ukraine, that would slow the Army's development towards NATO by redirecting resources (people and material) and creating additional requirements for military training, doctrine and material development?

#### The Purpose Statement and Research Questions

The purpose of this thesis is to research the Ukrainian Army's ability to gain the required level of interoperability with NATO as a part of the Euro-Atlantic integration process, which is being conducted with the aim to improve the Ukrainian Armed Forces capabilities for increasing of the level of stability and peace in Europe.

To achieve the aim of the thesis with the focus on present challenges, the primary research question was determined: What are the Ukrainian Army's abilities to achieve interoperability with NATO by 2020?

The first challenge on the road to the Ukrainian Armed Forces transformation is the doctrinal component with focus on the NATO Standardization mechanism. The interoperability of multinational forces, doctrines, and procedures requires common terminology in addition to the ability to integrate communication and control systems, military equipment, and armament. To achieve this task, NATO has developed standardization agreements.<sup>8</sup> As the unit's capabilities are determined by the nation, the NATO standardization mechanism, presented by the NATO STANAGs, measures the unit's fitness and interoperability potential.

The next issues on the way of Ukrainian Armed Forces transformation and reformation are determined time limits and a deficiency in professional personnel. The declared speed for the implementation of changes within the Ukrainian military to improve its structure, sustainment system, and training priorities to meet NATO standards is at an unrealistic rate. Moreover, the NATO military advisers that were sent to Ukraine looked mainly at the strategic level of Armed Forces reforms. Currently only 61 NATO advisers work with the Ministry of Defense and the General Staff of Ukraine.<sup>9</sup>

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<sup>8</sup> V. Huzhniak, *Проблеми впровадження в Україні військової системи стандартизації НАТО* ["The problems of the NATO standards implementation into Ukrainian military system"] (Kharkiv, Ukraine, 2005), 3-6.

<sup>9</sup> I. Sampan, *Стандарты НАТО как панацея для украинской армии. Что уже сделано?* ["The NATO standards as a panacea for the Ukrainian Army: What was done already?"], *112.ua*, October 2017, accessed 21 March 2019,

Their awareness of the reality of the situation in the Ukrainian military is often limited as they represent mainly western European countries, and do not speak the local language. That narrows their functional assistance to the analysis of information presented by the designated representatives of the Ukrainian military authorities, and this does not usually reflect the complete spectrum of extant issues, often because of attempts to improve impressions or cover gaps. As a result, NATO advisors often do not know about issues that could have serious consequences for future implementation, especially at operational and tactical levels.

This was further complicated as tactical and operational levels of NATO integration of the military became the responsibility of the Ukrainian officers, who often lack experience in the area of NATO standardization. Additionally, the required advisory assistance from the NATO subject matter experts (SMEs) was limited by time and the assets involved.

To research the Ukrainian Army's current state of NATO integration and to analyze the aforementioned issues and challenges for the Ukrainian Army's readiness to become a contributor to NATO-led forces, the following secondary research questions were determined:

1. What are the progress and the current status of the Ukrainian Army's involvement in NATO integration processes?
2. What are the gaps on the way of gaining interoperability?

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<https://112.ua/statji/standarty-nato-kak-panaceya-dlya-ukrainskoy-armii-chto-uzhesdelano-417521.html>.

3. How does the conflict in Eastern Ukraine effect the process of the Ukrainian Army's integration with NATO?

The implementation of the required reforms, and fulfilment of the necessary changes within the military structure needs deeper analysis to define the potential difficulties in the reformation and integration of the Ukrainian Armed Forces. The goal of the thesis is to find ways to bridge the gaps that are preventing the Ukrainian Armed Forces from accomplishing the tasks to achieve NATO forces standards.

#### Studies Addressing the Problem

The past studies on the topic of the Ukrainian Army capabilities to meet NATO standards are limited and presented by several sources: digests of the NATO standards and capabilities, assessment of the current status of the separate Army units, and the National Defense Strategic Guidance and Bulletins.

The problems of the Ukrainian interpretation of the NATO standards and capabilities will be discussed in the Standardization issues block presented in the Chapter 4 of the thesis.

The evaluations of the current status of the Army units are limited to the units selected to participate in the NATO Operational Capability Concept Evaluation & Feedback Program (OCC E&F) and are comprised of numerous evaluation reports written by the Observer Controller Team (OCT) officers. These reports are restricted, but the information concerning the final results and statistical data are available, and included in official annual governmental reports such as the *White Book* of the Ministry of Defense of Ukraine. The analysis of this information is required to support the thesis purpose.

The National Defense Strategic Guidance and Bulletins include mainly general information, but in part of the Armed Forces integration in NATO may be used as a data source.

The thesis will examine the extant data to provide an analysis of Ukrainian Army capabilities with respect to the conducted assessments.

### Assumptions

1. Any deepening of NATO's relations with Ukraine will be limited to participation in the NATO PfP program and will not include a Membership Action Plan (MAP) to initiate the process of the joining NATO as a member state.
2. The Russian Federation will continue its support of unrecognized republics in the Donbass region that will continue the conflict in Eastern Ukraine.

### Definition of Terms

For the understanding of the following thesis material, the explanation of the general terminology is provided below:

Combat Readiness Evaluation (CREVAL) – the system for assessing and evaluating the combat readiness status of battalion-sized land units that are designated to conduct allied operations under the command of the NATO Supreme Headquarters Allied Powers Europe (SHAPE)<sup>10</sup>

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<sup>10</sup> Ministry of Defence, Hungarian Government, "Preparing for the CREVAL," July 2012, accessed 09 November 2018, <http://2010-2014.kormany.hu/en/ministry-of-defence/news/preparing-for-the-creval>.

Interoperability – the ability of the forces to operate together coherently, effectively and efficiently.<sup>11</sup>

NATO-led Operations – operations utilizing NATO’s military structures and incorporating contributions from operational partners, carried out under the authority of the North Atlantic Council (NAC). An operational partner is a country that contributes forces and/or capabilities to a NATO-led operation or supports it in other ways that the NAC formally accepts, on the basis of political-military advice, as a contribution.<sup>12</sup>

NATO Response Forces (NRF) – a highly ready and technologically advanced multinational force made up of land, air, maritime and special forces components that the Alliance can deploy quickly wherever needed, providing a vehicle to demonstrate operational readiness as well as a “testbed” for Alliance transformation.<sup>13</sup>

Operational Capability Concept (OCC) – a practical multipurpose military tool that serves to establish close operational relationships between the Alliance and partner countries, which will potentially contribute to NATO-led operations by supporting

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<sup>11</sup> North Atlantic Treaty Organization (NATO), NATO Standard Allied Joint Publication (AJP)-01, *Allied Joint Doctrine*, ed. E, ver. 1 (Brussels, Belgium: NATO Standardization Office, February 2017).

<sup>12</sup> North Atlantic Treaty Organization (NATO), “Political military framework for partner involvement in NATO-led operations,” 2014, accessed 26 November 2018, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2011\\_04/20110415\\_110415-PMF.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2011_04/20110415_110415-PMF.pdf).

<sup>13</sup> North Atlantic Treaty Organization (NATO), “The NATO Response Force,” October 2013, accessed 26 December 2018, [https://www.nato.int/cps/en/natolive/topics\\_49755.htm](https://www.nato.int/cps/en/natolive/topics_49755.htm).

partners' effort to develop fully interoperable and operationally capable forces in compliance with NATO standards and procedures.<sup>14</sup>

OCC Evaluation & Feedback Program (OCC E&F) – a two-level evaluation process, which includes a self-evaluation (SEL) and a NATO evaluation (NEL) conducted on each level with Level 1 evaluations primarily focus on interoperability while level 2 assessments concentrate on capabilities (mission accomplishment).<sup>15</sup>

Planning and Review Process (PARP) – a planning tool to guide and measure progress in defense and military transformation and modernization efforts with the aim to promote the development of forces and capabilities by partners that are best able to cooperate alongside NATO Allies in crisis response operations and other activities to promote security and stability, providing a structured approach for enhancing interoperability and capabilities of partner forces that could be made available to the Alliance for multinational training, exercises and operations.<sup>16</sup>

Pool of Forces and Capabilities (PoF) – a list of units that partners declared to NATO as potentially available for participation in NATO exercises and operations, including NRF, maintained by the Operational Capability Concept Section (OCC

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<sup>14</sup> Mission of the Republic of Azerbaijan to NATO, “Operational Capabilities Concept (OCC),” accessed 27 February 2019, <http://nato-pfp.mfa.gov.az/content/24>.

<sup>15</sup> North Atlantic Treaty Organization (NATO) Military Partnerships Directorate, *Operational Capabilities Concept Evaluation and Feedback (OCC E&F) Programme OCC E&F Handbook*, ver. 3.1 (Norfolk, VA: Supreme Allied Commander, Transformation, February 2016).

<sup>16</sup> NATO Public Diplomacy Division, *NATO Encyclopedia* (Brussels, Belgium: NATO Headquarters, December 2017), accessed 28 February 2019, [https://www.nato.int/nato\\_static.../pdf/.../20180201\\_2017-nato-encyclopedia-eng.pdf](https://www.nato.int/nato_static.../pdf/.../20180201_2017-nato-encyclopedia-eng.pdf).

Section), which accumulates considerable information on the evaluations and performance of the units and shares this information within NATO Command Structure (NCS) on a strict need-to-know basis<sup>17</sup>

Standardization – the development and application of concepts, policies, procedures and designs (constructions) in order to establish and maintain the level of compatibility, interchangeability and commonality required to attain the intended degree of interoperability or to optimize the use of assets in the fields of military command and control, processes, materiel, technology and administration<sup>18</sup>

Standardization Agreement (STANAG) – an agreement among several, or all, NATO nations about standardization of military equipment, ammunition, supplies, stores, and operational, logistic, and administrative procedures.<sup>19</sup>

Status of Forces Agreement (SOFA) – a multilateral agreement between NATO member states and countries participating in the PfP Program, dealing with the status of foreign forces while present in the territory of another state; SOFAs fully respect the principle of territorial sovereignty, which requires a receiving state to give its consent to the entry of foreign force.<sup>20</sup>

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<sup>17</sup> NATO Military Partnerships Directorate, *OCC E&F Handbook*.

<sup>18</sup> Friedrich Hoffend, “NATO Standardization in the Field of Armaments” (PowerPoint Presentation, Federal Officer of Bundeswehr Equipment, Information Technology and In-Service Support, Wir. Dienen. Deutschland, May 2012), accessed 22 February 2019, <https://eddis.eda.europa.eu/Files/NATO%20STANAG.pdf>.

<sup>19</sup> NATO Military Partnerships Directorate, *OCC E&F Handbook*.

<sup>20</sup> NATO Public Diplomacy Division, *NATO Encyclopedia*.

Tools for Operations Planning Functional Area Services (TOPFAS) – a NATO computer system used for planning and conducting operations. Partners provide all necessary information about the unit(s), using a format which is compatible with TOPFAS (the TOPFAS form). The TOPFAS form contains precise and accurate data on unit structure, role, equipment and limitations.<sup>21</sup>

### Limitations

The research is limited by the classification and accessibility restrictions on NATO and Ukrainian documentation concerning units' training, readiness evaluation, and lessons-learned elements. The information used for this thesis will be unclassified only.

The thesis will focus on only three elements – Doctrine, Training, and Material – of the DOTMLPF-I model for Army capabilities analysis. Because of time limitations for conducting the research, all other elements of the DOTMLPF-I model will be discussed only in a cursory manner, so as to allow for more in-depth investigation of the relationships between all of the DOTMLPF-I elements.

### Scope and Delimitations

The main focus of the research is the Ukrainian experience in developing its military according to the NATO standards and the obstacles to it becoming a stable and reliable partner of the Euro-Atlantic Security community.

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<sup>21</sup> NATO Military Partnerships Directorate, *OCC E&F Handbook*.

The main concentration of the research is on 2014 – 2018, a period of recovery in the relations between NATO / the EU and Ukraine as well as a time of significant changes in the Ukrainian National policy in the foreign affairs area concerning a potential NATO adversary – the Russian Federation which created condition for the possible renewal of the “Cold War”. The previous period of NATO – Ukraine relations (from 1994 to 2014) is used only generally for statistical information because of absence of serious intentions from the side of Ukrainian society to join NATO at that time and significant Russian influence on Ukraine’s international affairs.

As the assessment of the Army units’ capabilities according the NATO standards was conducted only for separate units, the scope of the research will include only the Army units that were chosen to participate in the NATO OCC E&F Program.

#### Significance of Study

This thesis can be used as a foundation for the personnel of the NATO partner nations responsible for the Armed Forces capabilities development, and the development of the Army unit’s interoperability with NATO, as a part of the Operational Capabilities Concept program, and by other researchers in the field of NATO standardization and interoperability.

As a reference to the main documentation and research in the area of gaining NATO interoperability for non-NATO members, this study is important for the Armed Forces working groups and the responsible personnel from the PfP countries who declared any of their Army units capable of taking part in the NATO Defense projects and participating in the Operational Capabilities Concept Evaluation & Feedback

Program (OCC E&F), NATO Pool of Forces and Capabilities, and/or NATO Response Forces (NRF).

## CHAPTER 2

### LITERATURE REVIEW

As mentioned in the previous chapter, the purpose of this thesis is to research the Ukrainian Army's ability to gain the required level of interoperability with NATO as a part of the Euro-Atlantic integration process, which is being conducted with the aim to improve the Ukrainian Armed Forces capabilities and leading to increased levels of stability and peace in Europe. The thesis discusses a perspective of the issues existing for the contemporary Ukrainian Armed Forces, the time constraints that have been set by the government, and the influence of the current conflict in Eastern Ukraine on the Ukrainian Armed Forces reformation processes towards NATO interoperability.

This chapter examines a wide range of the literature regarding the primary research question "What are the Ukrainian Army's abilities to achieve interoperability with NATO by 2020?" and secondary research questions. This literature consists of official documents and doctrines from NATO and Ukraine, academic literature, and media resources.

The literature review provides a common understanding of the European Security Organizations role for Ukraine and its cooperation within the PfP Program; the preparation and participation of the NATO partner countries in the Operational Capabilities Concept Evaluation and Feedback (OCC E&F) Program for the Collective Security improvements, the challenges of interoperability in the way of the Euro-Atlantic integration of Ukraine, and capabilities of the Ukrainian Armed Forces to meet NATO standards. The review is conducted by analyzing Ukraine's situation since joining the North Atlantic Cooperation Council (NACC) in 1991 (after proclaiming independence) to

the current period of increased EU-NATO-Ukraine relations during 2014-2018 (the period of Ukrainian resistance against Russian aggression).<sup>22</sup>

### NATO Role for Ukraine in the System of European Security

The Ukrainian efforts to be a part of democratic European society led Ukraine towards participation in each elements of the European Security System as a member or as a partner.

Currently, the European Security System is represented by the following organizations: The United Nations (UN), The Organization for Security and Cooperation in Europe (OSCE), The Council of Europe, the European Union (EU), and The North Atlantic Treaty Organization (NATO).

The roles of each of the afore mentioned organizations are determined, but the importance and the level of influence on international society are very controversial. As Anne-Else Hojberg discussed in *NATO Review* article “The European security structure. A Plethora of organizations?” (1995), after the Cold War period it’s clear that the process of the structure correction for European Security should continue. Nowadays the role of the OSCE is disputed; The Council of Europe is directed to support human rights by increasing the level of democracy; the EU tries to find balance concerning its enlargement to the East. The UN and the OSCE have power to legitimize actions, but do not have enough assets to carry out their decisions as NATO has.<sup>23</sup> Furthermore, the

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<sup>22</sup> NATO Public Diplomacy Division, *NATO Encyclopedia*.

<sup>23</sup> Anne-Else Hojberg, “The European Security Structure. A Plethora of Organizations?” *NATO Review* 43, no. 6 (November 1995): 30-35.

Russian presence and the right of veto in the UN and the OSCE significantly minimizes the efficiency of both organizations.

At the present time, only NATO with its firm partners has enough assets to ensure stability in Europe, prevent Russian influence spreading to the West, and assist Ukrainian ambitions to develop its military capabilities. Hojberg emphasized the great impact of the cooperation between NATO and partner nations (PfP countries), that creates a new form of security cooperation.<sup>24</sup>

Ukraine-NATO relations, in the context of Euro-Atlantic integration, remains the most discussed question among the Ukrainian population since its independence, and the importance of this question changes all the time.

Serhii Rechich discussed the Ukrainian-NATO military-political relations in their early beginning as a process that had a tendency of gradually growing. He has determined several periods of the relations' development before 2010:

1991-1996 – the period of the beginning of relations;

1997-2001 – the period of the special partnership formation;

2002-2004 – the period of the deep and active relations;

2004-2009 – the period of the intensive dialogue between Ukraine and NATO.<sup>25</sup>

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<sup>24</sup> Hojberg, “The European Security Structure. A Plethora of Organizations?” 30-35.

<sup>25</sup> Serhii Rechich, *З історії формування та розвитку воєнно-політичного співробітництва Збройних Сил України з НАТО* [“From the history of military-political relations development between the Armed Forces of Ukraine and NATO”] (The National University of Defense of Ukraine, Kyiv, Ukraine, 2012), 65.

The professor of NATO and European Security Issues at the George C. Marshall European Center for Security Studies, John Kriendler examined the importance of the NATO-Ukrainian relations both for NATO and Ukraine. He determined the main issues that slowed down Ukrainian membership in the Alliance: “radically divergent opinions within the government (between the President and the Prime Minister) on the desirability of Ukraine seeking NATO integration (among many other issues), lack of public support in Ukraine; the need for considerable further reform, the continuing complexity, fractiousness and uncertainty of the Ukrainian political process and disagreement over foreign policy prerogatives, differing views among allies about Ukrainian membership in NATO, and Russian pressure.”<sup>26</sup>

Since the Russian aggression against Ukraine most of these issues have disappeared automatically. The Ukrainian authorities as well as Ukrainian society support Euro-Atlantic integration processes, understanding that it is the only way to resist the Kremlin’s ambitions. Ukrainian society started supporting the European values that were appropriate to the Ukrainian spirit when the conflict began. However, the momentum was lost, and Ukraine faced a challenge that limited its possibility to join NATO rapidly. It missed the opportunity to enjoy the benefits it could have had as a NATO member: “the collective defense guarantees; defense at lower cost; participation in cooperative security arrangements; decision making in NATO; continuing impetus to reform, a possible boost

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<sup>26</sup> John Kriendler, *Ukrainian Membership in NATO: Benefits, Costs and Challenges* (Garmisch-Partenkirchen, Germany, George C. Marshall Center for Security Studies, July 2007), 4-8, 11-14.

for EU membership; strengthening Ukraine’s position vis-à-vis Russia and increased economic growth and foreign direct investment.”<sup>27</sup>

#### PfP Program value for Ukraine

With temporary uncertainty of the status of Ukrainian membership in NATO, Ukraine increased its cooperation with the Alliance, especially in the military sector. The Partnership-for-Peace Program (PfP Program) became a basis for improvement of Ukraine’s own forces, and the starting point for gaining interoperability with the NATO allies.

Ukraine was one of the first post-Soviet countries that joined the NATO PfP Program in 1994, and become the most active NATO partner sending Ukrainian troops to the NATO-led peacekeeping operation in Bosnia shortly after its entrance.<sup>28</sup>

The North Atlantic Treaty Organization official website in the article “Relations with Ukraine” describes Ukraine as sovereign, independent and stable with a high level of democracy and the rule of law meeting a basic condition for Euro-Atlantic Security. The article states that the relations between Ukraine and the Alliance date back to the early 1990s and have since developed into one of the most substantial of NATO’s

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<sup>27</sup> Kriendler, *Ukrainian Membership in NATO*.

<sup>28</sup> NATO, “NATO-Ukraine relations: The background,” June 2015, accessed 06 December 2018, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2015\\_06/20150624\\_1506-nato-ukraine-bg.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2015_06/20150624_1506-nato-ukraine-bg.pdf).

partnerships. Since the Russian-Ukrainian War, the cooperation has been increased in numerous critical directions.<sup>29</sup>

The same NATO official website article declared Ukraine a NATO partner country that has made a great contribution to European and international security by participating in numerous NATO-led operations and missions and continuing to share its troops today in spite of the Russian aggression.

The Armed Forces of Ukraine took part in NATO-led peace-support operations in Bosnia and Herzegovina and Kosovo, in addition to later continuing participation in the Kosovo Force (KFOR) with a heavy engineering unit including counter-improvised explosive devices capabilities.

Ukraine participates in the NATO-led International Security Assistance Force (ISAF) in Afghanistan by deployment of air assets to support sustainment delivery, medical personnel for the Provincial Reconstruction Teams, and instructors to the NATO Training Mission.

From March 2005 to December 2011, Ukraine contributed conventional forces (brigade size) to Iraq, as well as sending Ukrainian officers to participate in the NATO Training Mission.

From 2007 to 2010 Ukrainian ships have been deployed in the NATO-led maritime operation Active Endeavour, to combat terrorism in the Mediterranean Sea. In 2013, a Ukrainian Navy Forces frigate participated in the Alliance counter-piracy

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<sup>29</sup> North Atlantic Treaty Organization (NATO), “Relations with Ukraine,” June 2018, accessed 06 December 2018, [https://www.nato.int/cps/en/natolive/topics\\_37750.htm](https://www.nato.int/cps/en/natolive/topics_37750.htm).

operation known as Ocean Shield. Since the beginning of the Sea Guardian operation, Ukraine has conducted information support providing situational awareness concerning the area surrounding the Black Sea.<sup>30</sup>

In addition to that, Ukraine became the first NATO partner country that joined the NATO Response Forces (NRF) by contributing a CBRN platoon and strategic airlift capabilities (SAC) in 2011. Since 2015, the Ukrainian Armed Forces have been consistently providing SACs along with navel and medical capabilities.<sup>31</sup> Additionally, Ukrainian Land Forces has been working towards its preparation for NRF as a self-sustained separated element of the NRF Joint Forces since 2016. This is considered to be great challenge, even for NATO members.

Since 2015, Ukraine has regained its participation in the Operational Capabilities Concept Evaluation and Feedback Program (OCC E&F) as a step towards the creation of conditions conducive to develop the necessary level of interoperability. Participation in this program increased confidence between the partners and opened new horizons for the Ukrainian Armed Forces, such as increasing the readiness level of all military branches as well as developing contemporary forms and methods of training, evaluation and feedback processes. The Ukrainian Armed Forces participation in the OCC E&F Program made the possibility of joining the Alliance more realistic and became the basis for future positive changes within the Ukrainian military organization, serving to ensure reformation and substantial shift from Soviet style principles.

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<sup>30</sup> NATO, "Relations with Ukraine."

<sup>31</sup> Ibid.

## OCC E&F Program

The Operational Capability Concept Evaluation and Feedback Program is a practical military tool that works as foundation for an operational relationship between NATO and the NATO-led operation contributor from a partner country with the aim to prepare interoperable and capable forces according to the Alliance standards.<sup>32</sup>

As stated in *NATO Public Diplomacy Division's NATO Encyclopedia* “the Ukrainian participation in the OOC E&F Program supports the further development of the armed forces, while also enabling the Alliance to put together tailored force packages that can be deployed in support of NATO-led operations and missions.”<sup>33</sup>

The main document concerning the OCC E&F Processes is the NATO Military Partnerships Directorate's handbook *Operational Capabilities Concept Evaluation and Feedback (OCC E&F) Program*.

This Handbook presents the scope, guidance, and main elements of the OCC E&F Program as well as the role of the PfP Planning and Review Process (PARP) and the evaluation mechanism with supporting activities and responsibilities within the NATO Command structure.<sup>34</sup>

The document describes the OCC E&F Program as an instrument to increase the interoperability and operational capability level of allies' and partners' military units with

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<sup>32</sup> Allied Joint Force Command Brunnsom, “Operational Capabilities Concept Evaluation and Feedback Programme,” accessed 14 December 2018, <https://jfcbs.nato.int/page5745830/operational-capabilities-concept-evaluation-and-feedback-programme>.

<sup>33</sup> NATO Public Diplomacy Division, *NATO Encyclopedia*.

<sup>34</sup> NATO Military Partnerships Directorate, *OCC E&F Handbook*.

the target to create closer relations between NATO and PfP countries that make contributions to NATO-led operations and the NRF. Moreover, the OCC E&F Program pushes the reformations of the partner nations' Defense forces and acts as a catalyst in the development of many areas, from force and operational planning to NATO's training, exercise and certification processes.<sup>35</sup> The evaluation mechanism, which applies to selected units/capabilities, is presented in the Handbook as a two-level process with self-evaluation (SEL) and NATO evaluation (NEL) on each level.<sup>36</sup>

The main Ukrainian document dealing with the OCC E&F Program is *The Recommendations of the Operational Capability Concept implementation in the Armed Forces of Ukraine* developed by the General Staff of the Ukrainian Armed Forces. Issued at the beginning of 2007, when the question of joining NATO was in doubt, it does not cover all the issues now existing. Instead it works as a model for understanding the main program principles and mechanism for realizing them. It consists of the three main parts:

1. Operational Capability Concept;
2. The Operational Capability Concept Evaluation and Feedback Program;
3. Preparation for the participation in the OCC E&F Program.<sup>37</sup>

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<sup>35</sup> NATO Military Partnerships Directorate, *OCC E&F Handbook*.

<sup>36</sup> Ibid.

<sup>37</sup> The General Staff of the Ukrainian Armed Forces. *Методичні рекомендації щодо реалізації у Збройних Силах України заходів Концепції оперативних можливостей [The Recommendations of the Operational Capability Concept implementation in the Armed Forces of Ukraine]* (Kyiv, Ukraine: Operational Command Department, March 2007).

The Ukrainian Armed Forces “*White Book-2016*” works as a Strategic Defense Bulletin for Ukraine. It is a report of preceding period and a strategic guidance document for the Ukrainian Armed Forces Planning for the period of 2017-2018. The “*White book-2016*” includes a section concerning the OCC and determines the necessity of participation in the Program:

The Armed Forces joint training with military formations of other components of the defense forces of Ukraine in line with military standards of NATO member-states, made it possible to significantly increase operational capabilities related to the performance of tasks and conduct of operations while repelling armed aggression. The established and restructured military units performed the planned capabilities build-up.<sup>38</sup>

The “*White Book-2016*” reports the result of revived activity with NATO, namely the performance of an evaluation of three Ukrainian units and the positive results achieved on these evaluations (transport aircraft Il-76D, aeromedical evacuation aircraft An-26 Vita, and frigate “Hetman Sahaidachny”). The units mentioned above received positive feedback and were able to participate in NATO-led operations and exercises as well as take part in the NATO high readiness forces.<sup>39</sup> Additionally, the certification of the troops/capabilities as meeting NATO standards through the OCC E&F Program instruments has created the foundation for the Ukrainian Armed Forces’ own certification system. It makes the preparation of the future selected units/capabilities less complicated as the differences between the National and Alliance troop preparation systems are eliminated or minimized.

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<sup>38</sup> The Ministry of Defence of Ukraine, *White Book 2016: The Armed Forces of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2017), accessed 09 January 2019, [http://www.mil.gov.ua/content/files/whitebook/WB\\_2016\\_ENG\\_WEB.pdf](http://www.mil.gov.ua/content/files/whitebook/WB_2016_ENG_WEB.pdf).

<sup>39</sup> Ibid.

As the OCC E&F Program has the main goal of gaining interoperability between partner nations, it is a great challenge for Ukraine. As a country with the mainly Soviet style doctrines, armament and equipment, and the “Post-Soviet mind” of numerous military and political decision-makers it provides critical direction. Ukraine’s participation in the OCC E&F Program accelerated processes required for significant changes on route to achieving interoperability between the Ukrainian and NATO military forces.

### Gaining Interoperability

Allied Joint Publication (AJP-01), *Allied Joint Doctrine*, works as the capstone NATO doctrine for Allied joint operations. It determines the definition of interoperability and states that “Allied joint operations should be prepared for, planned and conducted in a manner that makes the best use of the relative strengths and capabilities of the forces that members offer for an operation.”<sup>40</sup>

AJP-01 describes three dimensions of interoperability between the units or military formations of a joint and multinational force: technical (e.g. hardware and systems); procedural (e.g. doctrines and procedures); and human (e.g. language, terminology and training).<sup>41</sup>

Additionally, AJP-01 states the vital role of the NATO Standardization agreements (STANAGs) in long-term effectiveness and the success of NATO-led operations: “At the operational level, emphasis should be placed on integrating the

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<sup>40</sup> NATO, NATO Standard AJP-01.

<sup>41</sup> Ibid.

contributing nations' forces and the synergy that can be attained; the success of the process will determine the ability of a joint force to achieve its commander's objectives.”<sup>42</sup>

The NATO standards create a framework for assessment all interoperability dimensions. Chapter 3 of the Armed Forces of Ukraine *White Book-2017 Results of the development, refurbishment, supply, renewal and disposal of weapons, military equipment, improvement of logistics support* describes the implementation of NATO standards, and expected outcomes of major steps towards NATO standards.<sup>43</sup>

Volodymyr Hyzhniak, discussing the issues of the implementation of NATO standards in Ukraine, emphasized both the significant number of standardization documents, up to 2000 agreements and publications, and the specificity and complexity of those documents in regards to the Ukrainian system. He expressed the opinion that full transition to NATO standards in Ukraine within one to two years would be impossible. The activity of harmonization of the current Ukrainian military standardization system with the corresponding NATO system will require considerable time, great financial costs, and the involvement of all departments.<sup>44</sup>

In the article “Smart standardization: a historical and contemporary success at NATO” Director of the NATO Standardization Agency, Dr Cihangir Akşit, stated that

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<sup>42</sup> NATO, NATO Standard AJP-01.

<sup>43</sup> The Ministry of Defence of Ukraine, *White Book 2017: The Armed Forces of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2018), accessed 09 January 2019, [http://www.mil.gov.ua/content/files/whitebook/WB-2017\\_eng\\_Final\\_WEB.pdf](http://www.mil.gov.ua/content/files/whitebook/WB-2017_eng_Final_WEB.pdf).

<sup>44</sup> Hyzhniak, “The problems of the NATO standards implementation into Ukrainian military system,” 3-6.

standardization plays a critical role in achieving interoperability according to the Alliance policy. STANAG is a synthesis of lessons learned through Alliance nations' experience in international exercises, combat operations, and NATO evaluations. As a result, the STANAG has documented and formalized the systematic practice of the members and partners to follow accepted rules. This outcome of this successful, 60-year standardization process within NATO is known as "smart standardization". With the aim to support the standardization process, The NATO Standardization Agency (NSA) was founded. The NSA is the principal agency of the NATO Defense Planning Process (NDPP) for capability development.<sup>45</sup> Current STANAGs are available in the NATO Standardization Document Database (NSDD).<sup>46</sup>

As Article 3 of the North Atlantic Treaty works as a framework for "collective capacity" within NATO,<sup>47</sup> the NATO Standardization Agency contributes through

- optimal use of resources,
- consensus-based development,
- preventing duplication of effort,

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<sup>45</sup> Dr. Cihangir Aksit, *Smart Standardization: A Historical and Contemporary Success at NATO* (Brussels, Belgium: NATO Standardization Agency, May 2014), accessed 17 January 2018, [https://www.nato.int/nato\\_static/assets/pdf/pdf\\_2014\\_05/20140528\\_140528-smart-standardization.pdf](https://www.nato.int/nato_static/assets/pdf/pdf_2014_05/20140528_140528-smart-standardization.pdf).

<sup>46</sup> NATO Standardization Document Database, "List of Current NATO Standards," accessed 19 January 2018, <https://nso.nato.int/nso/nsdd/listpromulg.html>.

<sup>47</sup> North Atlantic Treaty Organization (NATO), *The North Atlantic Treaty* (Washington, DC: NATO, April 1949), accessed 19 December 2018, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/stock\\_publications/20120822\\_nato\\_treaty\\_en\\_light\\_2009.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/stock_publications/20120822_nato_treaty_en_light_2009.pdf).

voluntary implementation, and customer focus.<sup>48</sup>

The implementation of NATO standards is one of the primary tasks needed for the Ukrainian Armed Forces to gain operational and technical interoperability with NATO forces. Decision-making on the application of the relevant standards, development of required national documents and regulations, and implementation of these regulations in Ukrainian Armed Forces activities are all parts of this process. As the NATO Allied Administrative Publication AAP-03 “Development, Maintenance and Management of NATO standardization documents” establishes procedures for the production, maintenance and management of NATO standardization documents specified regulations were developed in the Ministry of Defense of Ukraine to support the requirements outlined.<sup>49</sup> In comparison with the AJP-01, the newly published Allied Administrative Publication, AAP-03, explains fields of standardization for the Alliance and partners as Operational, Material and Administrative.

While operational NATO standardization documents determine conceptual, organizational or methodological requirements, the material standardization documents specify the technical ones. In conjunction with operational and material, administrative

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<sup>48</sup> Aksit, *Smart Standardization*.

<sup>49</sup> North Atlantic Treaty Organization (NATO), Allied Administrative Publication (AAP)-03, *Directive for the Production, Maintenance and Management of NATO Standardization Documents*, ed. K, ver. 1 (Brussels, Belgium: NATO Standardization Office, February 2018).

NATO standardization documents guide Alliance administration in various areas such as terminology, finances, human resources and military ranks.<sup>50</sup>

Coordinated efforts between the Ukrainian Armed Forces and the Ministry of Defense of Ukraine led to development of the process of National Standards Transformation for the period of 2016-2020. Steps towards the transition to NATO standards are described in the chapter 3 of the Armed Forces of Ukraine *White Book-2017*.<sup>51</sup>

Recently, due to steps towards the alignment of national and NATO standardization systems, the Ukrainian defense production sector gained new opportunities at expansion. In accordance with the new requirements, defense factories have to develop, produce, and fix weapons systems that meet required standards. Consequently, this increases the trading potential of military products as it has new markets the military sales. Instead of internal markets, Ukraine can now develop trade agreements with NATO members and partner nations.<sup>52</sup>

Attaining of interoperability in the technical area is the largest challenge for the Ukrainian Army. The Annual National Program “Ukraine – NATO 2017”, approved by the President of Ukraine (March 8, 2017) determines the main targets for the future development of the Ukrainian Armed Forces. According to this plan, the Ukrainian Armed Forces acquisition of armaments and weapons systems will be conducted by

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<sup>50</sup> NATO, AAP-03.

<sup>51</sup> The Ministry of Defence of Ukraine, *White Book 2017*.

<sup>52</sup> Ibid.

repairing, updating, and purchasing modern and modified systems from both national and foreign sources. Chief efforts should be concentrated towards decreasing the Ukrainian military sector's dependence on spare parts and systems elements previously purchased from the Russian Federation.<sup>53</sup> Supporting the Annual National Program "Ukraine – NATO 2017", Ministry of Defense of Ukraine Order № 103 concerning "Some questions of military-technical cooperation with NATO" tasks responsible departments to achieve technical interoperability with NATO Forces during the full life cycle of armament and weapons systems employment.<sup>54</sup>

The State Program for the Development of the Armed Forces of Ukraine until 2020 defines one of the main purposes for the creation of a modern military force as meeting Alliance standards and requirements as a necessary condition for joining NATO, and reflects one task to achieve that target – training and readiness evaluation according to the NATO standards. The task of gaining compatibility with the NATO Armed Forces is a primary focus of the Ukrainian Armed Forces training (Appendix A).<sup>55</sup>

In agreements with this, the Armed Forces of Ukraine *White Book 2017* states that the training of forces has to support combat readiness of units, personnel, and command

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<sup>53</sup> President of Ukraine, *The Annual National Programme Ukraine – NATO 2017*, Decree no. 103/2017 (Kyiv, Ukraine: President of Ukraine, 8 March 2017).

<sup>54</sup> The Ministry of Defence of Ukraine, *Деякі питання оборонно-технічного співробітництва з НАТО [Some questions of military-technical cooperation with NATO]*, No. 103 (Kyiv, Ukraine: Department of the military-technical policy and military armament development, 2017).

<sup>55</sup> The Ministry of Defence of Ukraine, *The State Program for the Development of the Armed Forces of Ukraine until 2020* (Kyiv, Ukraine: Ministry of Defence, 31 July 2017), accessed 09 January 2019, [http://www.mil.gov.ua/content/oboron\\_plans/2017-07-31\\_National-program-2020\\_en.pdf](http://www.mil.gov.ua/content/oboron_plans/2017-07-31_National-program-2020_en.pdf).

and control elements to carry out assigned tasks, maintain operational capabilities to resist armed aggression, and take into consideration the lesson learned from combat experience and Alliance standards.<sup>56</sup>

The participation of the Ukrainian Armed Forces in multinational exercises makes a great contribution to the development of training methods and transition to NATO standards. It has great impact on the efficiency of the Ukrainian Army's reformation as it gives troops the opportunity at practical experience of NATO standards in day-to-day activities and real-life missions.<sup>57</sup>

Improvement of the Ukrainian evaluation and training system relies heavily on not only acceptance of basic NATO doctrine and guidelines but also accurate and reliable research and understanding of those principles. The hierarchy of the NATO evaluation and training directives is shown in Appendix B of this thesis.<sup>58</sup> The most significant document concerning the evaluation and training for the NATO and partner's forces is The North Atlantic Treaty Organization, "Education and Training Directive", BI-SC Directive 75-2 (E&TD).

The Education and Training Directive's (E&TD) function is to set policies that optimize and prepare selected military units (capabilities) to meet the required level of

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<sup>56</sup> The Ministry of Defence of Ukraine, *White Book 2017*.

<sup>57</sup> Ibid.

<sup>58</sup> Supreme Allied Commander, Europe and Supreme Allied Commander, Transformation, Bi-Strategic Command (BI-SC) Directive Number 75-2, *Education and Training Directive* (Brussels, Belgium: NATO, October 2013).

interoperability within the Alliance forces. The document defines elements of education, individual and collective training (exercises), and structures (facilities).<sup>59</sup>

Participation in multinational Field Training Exercises (FTX) and Command-Post exercises (CPX) plays a significant role in interoperability development and assessment. With that understanding, Ukrainian Army units take part in numerous collective training events together with NATO and partner nations. The period of active combat action against Russian “little green men” and pro-Kremlin separatists lead to an interruption in Ukraine’s participation in the PfP Programme. Yet, after the ceasefire agreements had been signed in Minsk, the Ukrainian Armed Forces regained full involvement in the international and collective training. During 2018 the Ukrainian military took part in more than 20 multinational exercises both in Ukrainian territory and outside the country.<sup>60</sup>

Joint planning of multinational events, preparation of the participating units, and evaluations during these exercises, force Ukrainian military to change its approach toward the documentation of collective training. The most significant document for the NATO collective training and exercises (national and multinational) is the Bi-Strategic Command (BI-SC) Collective Training and Exercise Directive (CT&ED) 75-3. It references Education and Training Directive 75-2, where exercises are defined as a part

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<sup>59</sup> Supreme Allied Commander, Europe and Supreme Allied Commander, Transformation, BI SC Directive Number 75-2.

<sup>60</sup> Tyzhden.ua, *Від Світлої лавини до Trident Juncture. У яких міжнародних військових навчаннях брала участь Україна у 2018 році* [“From the Light Avalanche to the Trident Juncture. In which military exercises did Ukraine participate in 2018”], December 2018, accessed 29 January 2019, <https://tyzhden.ua/News/224509>.

of the education and training system and identified as a last step in readiness for real-life events.<sup>61</sup> The CT&ED provides directions and guidance to planners from NATO and partner nations for preparation and execution of collective training events and recognizes such exercises as a foundation for NATO evaluation of Alliance members' and partner nations' military forces.<sup>62</sup>

The value of interoperability is best summed up by Stephen J. Maranian in a research paper from the NATO Research College, "NATO Interoperability: Sustaining Trust and Capacity within the Alliance" follows: "If NATO is to endure in the decades to come and be a force that wields its influence as an advocate for peace and stability in the world, it must take significant steps to redefine its focus and implement initiatives that build and restore trust. Interoperability lies in the heart of NATO future."<sup>63</sup>

#### DOTMLPF-I Framework

The DOTMLPF-P framework was developed by the United States Department of Defense for a non-material and material approach required to fill a capability gap identified in a Functional Needs Analysis (FNA). For assessment of military capabilities within the NATO Joint Capabilities Integration Development System process, the

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<sup>61</sup> Supreme Allied Commander, Europe and Supreme Allied Commander, Transformation, Bi-Strategic Command (BI SC) Directive Number 75-3, *Collective Training and Exercise Directive* (Brussels, Belgium: NATO, March 2013).

<sup>62</sup> Ibid.

<sup>63</sup> Stephen J. Maranian, "NATO Interoperability: Sustaining Trust and Capacity within the Alliance," (Research Division, NATO Defense College, Rome, Italy, June 2015).

DOTMLPF-I framework (Appendix C) is used as a primary tool.<sup>64</sup> Military planners use this acronym “to consider certain issues prior to undertake [sic] a new effort. Doing this opens the mind for non-material focused solutions to capabilities gaps and promotes thinking outside the box. This interdisciplinary approach forces connections over the organizational silos and leads to a multitude of innovative options to fill the considered capability gap.”<sup>65</sup>

Each letter represents the following:

D – Doctrine represents a common way of thinking about or a good practice in a particular issue or problem. Doctrine encompasses tactics, and the specific procedures for conducting tasks,

O – Organization defines the structures and groupings that are used by formations and units,

T – Education and Training includes the full spectrum of instruction and knowledge or skill acquisition, both individual and collective,

M – Materiel includes specific equipment, weapon systems, stores and technology,

L – Leadership relates to how military leaders should and do use a considered capability,

P – Personnel represents the type of servicemen or women that are needed. This includes identifying specialists and/or specific skills that are needed,

F – Facilities is a generic heading for all infrastructure needed to accommodate, train – this is not the training itself - and prepare any military forces,

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<sup>64</sup> Patrick Van Hoerlende, “What about DOTMLPFI?” ThinkBox, accessed 05 March 2019, [https://www.webdiver.be/Non\\_diving/Docs/Article-03-What-about-DOTMLPFI.pdf](https://www.webdiver.be/Non_diving/Docs/Article-03-What-about-DOTMLPFI.pdf).

<sup>65</sup> Ibid.

I – Interoperability is the ability to work with others throughout NATO. A purely national capability may be fine, but is nearly useless in a coalition.<sup>66</sup>

Each component of the DOTMLPF-I framework has to be assessed individually and in relation to the others. The relationships between the components are critically important when appraising the potential influence of one component on another.<sup>67</sup>

### Summary

The literature review included the main resources that created the foundation for the subsequent research. In conducting the literature review the necessity to carry out this research was reinforced as the absence of concentrated knowledge or studies in this area became clear. The reviewed literature reflects required processes to be undertaken, and standards to achieve reform of the armed forces in order to meet NATO standards. All extant information concerning the thesis topic only formally discusses challenges without taking in consideration the present and ongoing armed conflict within Ukrainian territories. The information concerning the Ukrainian Army capabilities as well as the methodology of units (capabilities) evaluation, requires research to get an answer to the main research question: What are the Ukrainian Army’s abilities to achieve interoperability with NATO by 2020?

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<sup>66</sup> Van Hoerlende, “What about DOTMLPFI?”

<sup>67</sup> Ibid.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### Introduction

This Chapter discusses the methodology utilized during the thesis research to answer the primary research question: What are the Ukrainian Army's abilities to achieve interoperability with NATO by 2020?

The sequence of this research is as follows: review of multiple sources of data organized into codes and themes; interpretation of findings; validation of data by comparison across resources; inductive and deductive data analyses viewed through the prism of the NATO Defense Planning Process model (DOTMLPF-I) aimed at answering the secondary research questions; and a summary addressing the primary research question: What is the Ukrainian Army capabilities to achieve interoperability with NATO by 2020?

To organize the thesis research in a logical sequence, Chapter 3 describes the research methodology, which consists of the following parts: data collection and research design, data analysis and synthesis, and conclusion.

#### Data Collection and Research Design

The purpose of this research is to discover the Ukrainian Army's ability to gain the required level of interoperability with the NATO as a part of the Euro-Atlantic integration process which has been conducted with the aim to improve the Ukrainian Armed Forces capabilities for increasing stability and peace in Europe.

The research is based on the analysis of studies, documents, articles, official reports and web resources that are connected with the following:

1. Facts and assumptions of Euro-Atlantic integration processes for the Ukrainian Armed Forces since 1994, from the beginning of participation in the PfP Program until acceptance of the National policy of European and Euro-Atlantic integration by the Verhovna Rada (Congress) of Ukraine at the beginning of 2019;
2. Approaches of the Ukrainian Armed Forces leadership towards gaining interoperability with NATO members and partners, including both their successes and failures;
3. The current situation of conflict in Eastern Ukraine and its influence on the NATO integration process;
4. Evaluation of the current status and subsequent challenges of the Ukrainian Army units selected for participation in the PfP Program and the NATO Pool of Force (PoF).

During the course of this research the qualitative interviews were not conducted but information was gathered from interviews of Ukrainian and NATO officials via media and news sources.

For the inquiry of the main research question and sub-questions listed in Chapter 1, the qualitative research method was chosen as the most appropriate. To validate the

thesis, the researcher drew on the studies of John W. and J. David Creswell.<sup>68</sup> Analysis of the capabilities of the Ukrainian Army will include research and discussion on its current situation, reformation processes, training activities and evaluation events both internal and international, reports and feedback to prove the present status of the Army units, and their perspective as a part of global security forces within NATO.

### Data Analysis and Synthesis

A descriptive type of research was used to conduct this analysis. It reflects not just on the facts and assumptions, but “researches theory and practice by trying to make sense of the myriad human, political, social, cultural and contextual elements involved.”<sup>69</sup> As the main purpose of the research is to determine possible ways for future improvement of the Ukrainian Armed Forces, the evaluation approach is used to examine the research questions. This grants the opportunity to assess the challenges faced by the Ukrainian Army during participation in the OCC Planning and Review Process (PARP) as a part of the NATO PfP Program, and discover possible solutions for the gaps that were identified.

The data analysis will be performed by research of the secondary research questions. As the document that regulates NATO evaluations of Army units and capabilities (CREVAL) is restricted, this thesis will not include its elements and the

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<sup>68</sup> John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed. (Los Angeles: SAGE Publications, 27 November 2017).

<sup>69</sup> Nicholas Walliman, *Research Methods: The Basics* (London: Taylor and Francis Group, 2011), 11-12.

question of evaluation will be discussed from the unclassified perspective. The unrestricted parts of the NATO evaluation reports of the Ukrainian Army units (capabilities), such as the official Ukrainian Army reports and annual Ukrainian Armed Forces bulletins (*White Book*), will be used to support the main research topic and evaluate the status and the level of Ukrainian military readiness.

Analysis of the first secondary research question “What are the progress and the current status of the Ukrainian Army’s involvement in NATO integration processes?” will be conducted by scrutinizing the Ukrainian Army’s involvement in the PfP Program and its evaluations according to the PARP and OCC E&F since joining in 1994. The research will include an analysis of statistical information and official reports to create analytical template. This will be used to conduct comparative analysis of the Army unit’s participation in NATO-led operations, multinational exercises, and NATO evaluations. Data will include assessment of units, personnel, and material; level of events (bilateral exercises, combat operation, etc.), sequences and importance of such events and a comparative analysis of events through the years in order to determine the level of Ukrainian Army’s involvement in the NATO integration process during of two time periods – before 2014 and after 2014. Sources of information for the following question are wide but not systematic, thereby elucidating the necessity to research the question.

The current status of the Ukrainian Army’s involvement in the NATO integration process will be considered through an analysis of the most recent official NATO and the Ukrainian Ministry of Defense documents, bulletins, reports, websites, and unrestricted parts of the NATO evaluators reports for mass media. The main Ukrainian resource for such information is the annual *White Book* that includes the results of evaluations which

may be used for the comparative analysis of the previous, current, and perspective level of the NATO interoperability of the Ukrainian Army units that were declared as a part of the NATO PoF or just declared as a participant of the NATO PARP. The research will reflect Army units participating in NATO Programs, analysis of the unit's readiness (according to official reports); time required for gaining such level of readiness; and events conducted for the full spectrum of evaluation and feedback processes (individual and collective training events under the NATO instructors/supervision, assessment of capabilities/interoperability according to the NATO standards) following the requirements of the *Operational Capabilities Concept Evaluation and Feedback (OCC E&F) Programme, OCC E&F Handbook, Version 3.1* (February 2016), and the *Collective Training and Exercise Directive, Number 75-3* (March, 2013).

The analysis of the second research question “What are the gaps on the way of gaining interoperability” will be conducted using elements of the DOTMLPFI model. The Partnership Goals of the Working Committee of Reforms “Ukraine – NATO” will be reviewed for this purpose.

The NATO Defense Planning Process (NDPP) through the DOTMLPFI (Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities, Interoperability) model defines the concepts and requirements for the Alliance to develop required capabilities.<sup>70</sup> As a framework for assessment of the Ukrainian Army's ability to meet NATO standards, and for the determination of associated challenges and pitfalls, the

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<sup>70</sup> LTG Jeffrey G. Lofgren, “NATO Capability Development and Interoperability,” *The Three Swords Magazine*, no. 30 (2016), accessed 31 January 2019, [http://www.jwc.nato.int/images/stories/\\_news\\_items\\_/2016/LT\\_GEN\\_Lofgren\\_interview.pdf](http://www.jwc.nato.int/images/stories/_news_items_/2016/LT_GEN_Lofgren_interview.pdf).

DOTMLPFI model will be used in the following research. Though it is the most suitable tool for this type of analysis, keeping in mind the limitations which were mentioned in chapter 1 of this thesis making most beneficial and responsible to focus on three elements of the model: Doctrine, Training, and Material.

To evaluate the element of Doctrine using the DOTMLPF-I model, the focus will be on the NATO Standardization Process within the Ukrainian military as a basis for overall interoperability. According to the scope of this thesis, the status of implementation of the NATO standards (STANAGs) in the Ukrainian Army will be analyzed pertaining to problems and challenges impeding its implementation, and its efficiency, statistical information of STANAGs that have been adopted and are planned to be adopted will be examined, and conflicts between existing national documents and standards implemented will be noted and considered. Additionally, the influence of doctrine standardization on other elements, such as training and material, will be investigated through the analysis of accepted documents setting standards in these areas. Information about the operative NATO STANAGs, and those accepted, by the Ukrainian military is open and available for public use without any limitations.

The Training element of DOTMLPF-I will be studied mainly using the *State Program for the Development of the Armed Forces of Ukraine until 2020* and its supporting documents, the training section of the *White Book*, and information from the official website of the Ministry of Defense and the General Staff of the Armed Forces of Ukraine. Discussion of this element will include the second research question “What is the current status of the Ukrainian Army’s interoperability with NATO?” with the focus on Training. The analysis will reflect the current status and gaps identified during the

training to achieve interoperability standards. It will illustrate the connection with the Doctrine component as a common part of the Force Management System.

The Material element will be analyzed through its support to the necessary level of interoperability required for the units to participate in NATO-led operations, and the ability to receive material in the short-term while considering cost and procedural constraints. Information from the official resources of governmental and non-governmental organizations responsible for the Army's material acquisition will be utilized in this analysis in addition to a review of the budget for Army acquisitions. The role of volunteer organizations active during the time of conflict will be examined in relation to Army material support as well.

Finally, the last secondary research question "How does the conflict in Eastern Ukraine effect the process of the Ukrainian Army's integration with NATO?" will be analyzed through the research of the conflict's influence on two elements of DOTMLPF-I – Training and Material. The analysis will include Force Training changes and Material priority requirements driven by the conflict, its influence on the tempo of gaining the necessary level of interoperability with NATO by the Army units that have to devote assets to train and equip forces according to the NATO standards with respect of the war requirement.

The analysis of the secondary research questions creates a basis for answering of the primary research question: "What are the Ukrainian Army abilities to achieve interoperability with NATO by 2020?"

## Summary

The author's purpose is to research the Ukrainian Army's ability to gain the required level of interoperability with NATO as a part of the Euro-Atlantic integration process. It has been conducted with the aim to improve the Ukrainian Armed Forces' capabilities for increasing the level of stability and peace in Europe as a part of the common European Security system.

The analysis conducted in chapter 4 will reflect findings and analysis based on the qualitative research methodology outlined in this chapter to answer the research questions and then set the stage for possible solutions in the conclusions of chapter 5.

## CHAPTER 4

### ANALYSIS

#### Introduction

The contemporary Ukrainian Army faces the problem of government and current security situation requirements to gain the capability to resist existing threats as well as to reform in accordance with NATO allies' standards. The problems of meeting necessary requirements include short timeframe imposed by the government for the Ukrainian Armed Forces reformation processes, and the low level of research into Army capabilities, and pressure on the decision-makers responsible for the Army reformation processes.

The purpose of this thesis is to research the Ukrainian Army ability to gain the required level of interoperability with NATO as a part of the Euro-Atlantic integration process that is conducted with the aim to improve the Ukrainian Armed Forces capabilities for increasing of the stability and peace level in the Eastern Europe. The thesis is discussed from the perspective of the issues existing for the contemporary Ukrainian Armed Forces, the time constraints stated by government, and the influence of the Eastern Ukraine conflict on the Ukrainian Armed Forces reformation processes.

The purpose of this Chapter is an analysis of the finding to answer the primary research question "What are the Ukrainian Army abilities to achieve interoperability with NATO by 2020?". The analysis will be conducted with the usage of three elements of the DOTMLPF-I model, and will be supported and developed by findings on the secondary research questions.

The Chapter consists of the three main Parts and the Summary that will answer the primary research question.

The secondary research question “What are the progress and the current status of the Ukrainian Army’s involvement in NATO integration processes?” will be discussed in the Part 1, “The analysis of the Ukrainian Army participation in the NATO PfP Program”, of the Chapter.

Part 2 of the Chapter will include an analysis of the second research question “What are the gaps on the way of gaining interoperability”. This Part of the Chapter 4 is the main one, and will include the detailed analysis of the following elements of the DOTMLPF-I model: Doctrine, Training, and Material.

The question of the conflict in Eastern Ukraine influence on the Ukrainian Army’s capabilities to meet NATO standards will be analyzed in Part 3 “How does the conflict in Eastern Ukraine affect the process of the Ukrainian Army’s integration with NATO?”. This Part will reflect the analysis of current issues that affect the Force management processes of the Ukrainian Army reformation by its influence on different aspects of military, such as implementation of Doctrine, Training planning and conducting, and Material acquisition.

The summary of the Chapter will prepare a basis for the conclusions in Chapter 5 with the aim of finding possible solutions for the gaps identified to answer the primary research question: “What are the Ukrainian Army abilities to achieve interoperability with NATO by 2020.”

## Part 1: Analysis of Ukrainian Army Participation in the NATO PfP Program

The NATO PfP Program is an instrument of cooperation between NATO and partner nations that is based on practical cooperation and respect of democratic principles. Since February 1994 Ukraine has been a participant in the NATO Partnership-for-Peace Program. Today, the Ukrainian Army as the main service of the Ukrainian Armed Forces participates in following mechanisms of PfP Program: Planning and Review Process (PARP), Operational Capabilities Concept (OCC); political-military frameworks of the partners' participation in the NATO-led operations; and multinational exercises.<sup>71</sup> The level of Ukrainian participation in PfP has varied reflecting national leadership goals. There was a period of multi-vector foreign policy (1994-2013) followed by a period of pro-Western policy (since 2014) when Ukrainians accepted the course towards the Euro-Atlantic integration expressed by the “Revolution of Dignity”.

Analyzing the first period of the Ukrainian Armed Forces involvement in the NATO Programs (1994-2017), the author divided it in four main parts for the better analysis and understanding of the tendencies that supported Ukraine-NATO relations in the military area:

From 1994 to 2004 – post-Soviet period characterized by the support of the Euro-Atlantic integration processes with the close cooperation with the Commonwealth of the Independent States (CIS) led by Russian Federation;<sup>72</sup>

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<sup>71</sup> Ukraine-NATO.mfa, *Україна – НАТО. Партнерство заради миру* [“Ukraine – NATO. Partnership for Peace”], accessed 25 March 2019, <https://ukraine-nato.mfa.gov.ua/ua/ukraine-nato/partnership-for-peace>.

<sup>72</sup> *Економічна політика, Економічне співробітництво України з регіональними об'єднаннями пострадянського простору* [“Economic cooperation of

From 2005 to 2009 – the period after the “Orange Revolution”. The third Ukrainian President Viktor Yushchenko government increases pro-Western tendencies, and enforces Ukraine – NATO cooperation. This period was characterized by Serhii Rechich as a phase of intensive dialog between Ukraine and NATO;<sup>73</sup>

From 2010 to 2013 – moving the foreign policy vector towards the CIS under the President Viktor Yanukovich rule;

From 2014 to 2017 – after the “Revolution of Dignity” period – regaining and improving relations with NATO, proclaiming the National goal to join Alliance and European Union.

Conducting research of the Part 1 questions, the author analyzed the following elements: multinational exercises under the NATO PfP Program, the Ukrainian Army participation in the PARP, and the Ukrainian Army participation in the NATO peacekeeping operations.

#### Multinational Exercises under the NATO PfP Program

After Ukraine joined the PfP Program in 1995, the Ukrainian Army units started their active participation in trainings and exercises in a framework of the PfP Program. During this period of Ukraine-NATO relations (1994-2004), particular attention should be paid to the bilateral Ukrainian-American series of exercises named “Peace Shield” which have become a multinational exercise with participation of military units from

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Ukraine with regional associations of the post-Soviet space”], 2003, accessed 21 March 2019, [http://www.niss.gov.ua/vydanna/panorama/issue.php?s=epol3&issue=2003\\_2](http://www.niss.gov.ua/vydanna/panorama/issue.php?s=epol3&issue=2003_2).

<sup>73</sup> Rechich, “From the history of military-political relations development between the Armed Forces of Ukraine and NATO,” 65.

around 26 NATO members and partner countries and the annual involvement of 1200-1600 Army personnel.<sup>74</sup>

Increased relations between Ukraine and the US as the leading nation in the Alliance in 2006 led to formation of the annual joint multinational military exercise “Rapid Trident”. Today, this multinational exercise is the largest conducted in Ukraine with participation of around 2,500 soldiers from 14 NATO member and partner nations.<sup>75</sup>

The first period (1994-2004) shows the stability in the growing Ukraine – NATO relations. It’s characterized by conducting events of Individual Partnership Action Plan (IPAP) between Ukraine and NATO, and participation in significant number of multinational exercises with NATO members and partners. The number of IPAP events increased from an average of 50 per year in the beginning of the period to the 220 events in 2004.<sup>76</sup> As Ukraine – NATO exercises are a part of IPAP events conducted with the aim of increasing partner nation capability to the required level of interoperability within the Alliance, the number of exercises required to develop the Ukrainian Armed Forces

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<sup>74</sup> Viktor Hudym, *Досвід України в миротворчій операції КФОР та участі в програмі Партнерство заради миру* [“The Ukrainian experience of KFOR peacekeeping operation, and participation in Partnership-for-Peace Program”], accessed 29 March 2019, <http://peacekeeping-centre.in.ua/Museum/Kosovo/Articles/Gudym.htm>.

<sup>75</sup> 5.ua, *На Львівщині добігають кінця військові навчання Rapid Trident-2017* [“Military exercise Rapid Trident-2017 are finishing in Lviv region”], accessed 29 March 2019, <https://www.5.ua/regiony/na-lvivshchyni-dobihaiut-kintsia-viiskovi-navchannia-rapid-trident2017-155496.html>.

<sup>76</sup> Radio Svoboda, *Хронологія участі Збройних Сил України у заходах програми Партнерство заради миру* [“The chronology of the Armed Forces of Ukraine participation in Partnership-for-Peace Program”], June 2006, accessed 29 March 2019, <https://www.radiosvoboda.org/a/946376.html>.

was significant (see Figure 1). This became the primary focus of the Army’s training system.

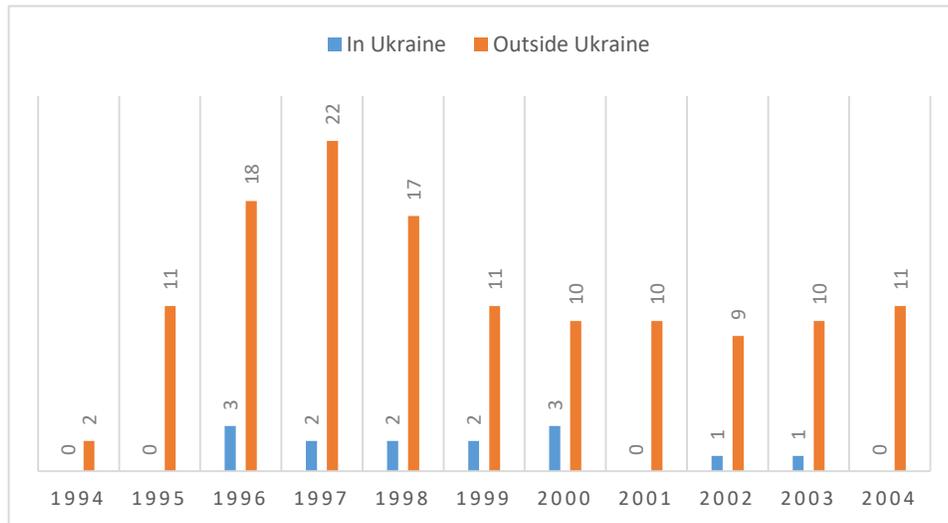


Figure 1. The Ukrainian – NATO Exercises Conducted during 1994-2004

*Source:* Created by author using data from Radio Svoboda, “The chronology of the Armed Forces of Ukraine participation in Partnership-for-Peace Program,” June 2006, accessed 29 March 2019, <https://www.radiosvoboda.org/a/946376.html>.

The analysis of the exercises organized in framework of PfP Program during this period reflects the growing interest in the Ukrainian – NATO relations, and the desire of Ukrainian military authorities to improve force capabilities using such opportunities. Additionally, the small number of multinational exercises conducted within Ukrainian territory shows the internal issues existing in Ukraine at that time.

Firing ranges that the Ukrainian Armed Forces had from Soviet time had the capability to conduct only battalion size field training exercises. They did not have sufficient infrastructure for the full-scale international exercises. In 1994, the Ukrainian

Armed Forces infrastructure was able to partially support bilateral exercises and required significant changes to carry out a multinational mission. In order to accommodate other nations' forces during military maneuvers, the Ukrainian military authorities decided to concentrate multinational training in one place. Thus, the Yavoriv firing range of the Ukrainian Army (positioned in the border with Poland) was accredited by NATO in 1999 and received the official name "International Center for Peacekeeping and Security" with the main task to conduct military maneuvers to develop skills required for peacekeeping operations under the NATO Partnership for Peace program.<sup>77</sup>

Finally, the analysis of the first period (1994-2004) shows the solid first attempts of the Ukrainian military authorities to follow the pro-European direction of the Army reformation with the decreasing of relations with CIS countries in all aspects of military cooperation.

The analysis of the multinational exercises of the second period (2005-2009) displays the stability of Ukraine – NATO cooperation in military affairs and changes to the format of collective training events.

The number of international exercises had no significant changes with the previous period, but Ukraine became a host nation for 32 percent of all multinational exercises conducted with the participation of the Ukrainian Armed Forces (in comparison with less than 11 percent of the previous period). The statistics of the multinational exercises of this period is shown in Figure 2:

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<sup>77</sup> Daily Lviv, *На Яворівському полігоні на Львівщині розпочинаються військові навчання України з НАТО* ["Ukraine – NATO military exercises start in Yavoriv firing range in Lviv region"], accessed 26 March 2019, <http://old.dailylviv.com/news/33345>.

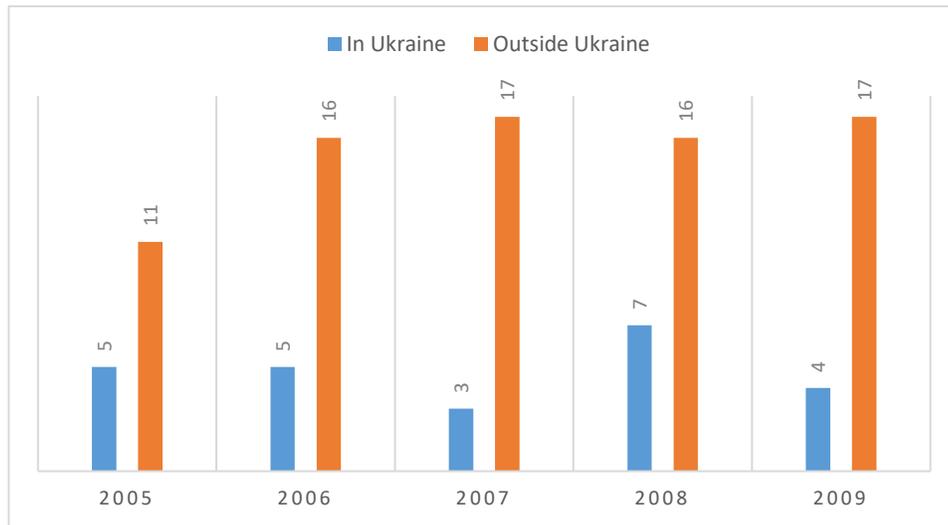


Figure 2. The Ukrainian – NATO Exercises Conducted during 2005-2009

Source: Created by author using data from The Ministry of Defence of Ukraine, *White Book 2005: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2006: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2007: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009: The Armed Forces of Ukraine*.

Budget constraints led to insufficient funds to meet the requirements identified by NATO for Joint Rapid Reaction Forces (JRRF) preparation (less than 51 percent of required funds).<sup>78</sup> until 2005-2006 when the Ukrainian authorities found the required resources to conduct combined training events in accordance with the PfP Program. At the same time, the number of multinational training events conducted with the CIS and

<sup>78</sup> The Ministry of Defence of Ukraine, *Біла книга 2005. Оборонна політика України* [*White Book 2005: Defence Policy of Ukraine*] (Kyiv, Ukraine: Ministry of Defence, 2006), accessed 04 January 2019, [http://www.mil.gov.ua/files/white\\_book\\_uk2005.pdf](http://www.mil.gov.ua/files/white_book_uk2005.pdf).

bilaterally with Russian Federation, as well as the role all the Ukrainian Army participation in these events, were decreased to a historical low. In 2007 the Ukrainian Armed Forces had 44 events with the Russian Armed Forces, in 2008 Ukraine had only seven.<sup>79</sup>

The time period analysis also shows the growing role of the NATO multinational exercises role in the common training system of the Ukrainian Armed Forces. In 2009 the NATO multinational exercises composed more than 22 percent of the overall Army training events in comparison with the 2008 with just 8.2 percent.<sup>80</sup>

The most important changes occurred during the third period (2010-2013) when the foreign policy vector of Ukraine was switched from the West to the East direction, and the Ukrainian President Viktor Yanukovich started his close relationship with Russia through the agreement with Russia concerning the Black Sea Fleet positioning in Sevastopol, Crimea until 2046.<sup>81</sup> At the same time, an analysis of the Ukrainian

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<sup>79</sup> The Ministry of Defence of Ukraine, *White Book 2005*; The Ministry of Defence of Ukraine, *White Book 2006: Defence Policy of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2007), accessed 04 January 2019, <https://www.files.ethz.ch/isn/155177/Ukraine%20white%20book%202006.pdf>; The Ministry of Defence of Ukraine, *White Book 2007: Defence Policy of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2008), accessed 05 January 2019, <https://www.files.ethz.ch/isn/155178/Ukraine%20white%20book%202007.pdf>; The Ministry of Defence of Ukraine, *White Book 2008* (Kyiv, Ukraine: Ministry of Defence, 2009); The Ministry of Defence of Ukraine, *White Book 2009: The Armed Forces of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2010), accessed 05 January 2019, [http://www.operationspaix.net/DATA/DOCUMENT/3081~v~White\\_Book\\_2009\\_-\\_Armed\\_Forces\\_of\\_Ukraine.pdf](http://www.operationspaix.net/DATA/DOCUMENT/3081~v~White_Book_2009_-_Armed_Forces_of_Ukraine.pdf).

<sup>80</sup> The Ministry of Defence of Ukraine, *White Book 2009*.

<sup>81</sup> Dmytro Korchynskii, *Сто днів: успіхи чи тотальний провал?* ["100 days: success or the total failure?"], *Unian News Agency*, June 2010, accessed 03 April 2019, <https://www.unian.ua/politics/365165-sto-dniv-uspihi-chi-totalniy-proval.html>.

international relations shows that relations between the Ukrainian Army and the NATO forces didn't have any significant changes, even though the number of troops involved in exercises with NATO members and partners was increased more than in 1.5 times.<sup>82</sup>

During the same period, the number of military cooperation events with the Russian Federation was increased. In comparison to the previous year by more than three times in 2010 (25 events). In 2013 with 97 events marking the first time more cooperation events were held with Russia than with NATO according to the IPAP (only 70 NATO events in 2013).<sup>83</sup> Also, the number of participants in Ukrainian – CIS – Russian military exercises significantly increased, as shown in Figure 3.

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<sup>82</sup> The Ministry of Defence of Ukraine, *White Book 2005*; The Ministry of Defence of Ukraine, *White Book 2006*; The Ministry of Defence of Ukraine, *White Book 2007*; The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009*; The Ministry of Defence of Ukraine, *White Book 2010: The Armed Forces of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2011), accessed 05 January 2019, [https://www.files.ethz.ch/isn/156823/Book\\_WP\\_2010\\_eng.pdf](https://www.files.ethz.ch/isn/156823/Book_WP_2010_eng.pdf); The Ministry of Defence of Ukraine, *White Book 2011: The Armed Forces of Ukraine* (Kyiv, Ukraine: Ministry of Defence, 2012), accessed 05 January 2019, [https://www.files.ethz.ch/isn/167335/WB\\_Eng\\_final\\_2011.pdf](https://www.files.ethz.ch/isn/167335/WB_Eng_final_2011.pdf); The Ministry of Defence of Ukraine. *Біла книга 2012. Збройні Сили України [White Book 2012: The Armed Forces of Ukraine]* (Kyiv, Ukraine: Ministry of Defence, 2013), accessed 05 January 2019, [http://shron1.chtyvo.org.ua/Ministerstvo\\_oborony\\_Ukrainy/Bila\\_knyha\\_2012\\_Zbroini\\_Sily\\_Ukrainy.pdf](http://shron1.chtyvo.org.ua/Ministerstvo_oborony_Ukrainy/Bila_knyha_2012_Zbroini_Sily_Ukrainy.pdf); The Ministry of Defence of Ukraine, *White Book 2013*.

<sup>83</sup> Ibid.

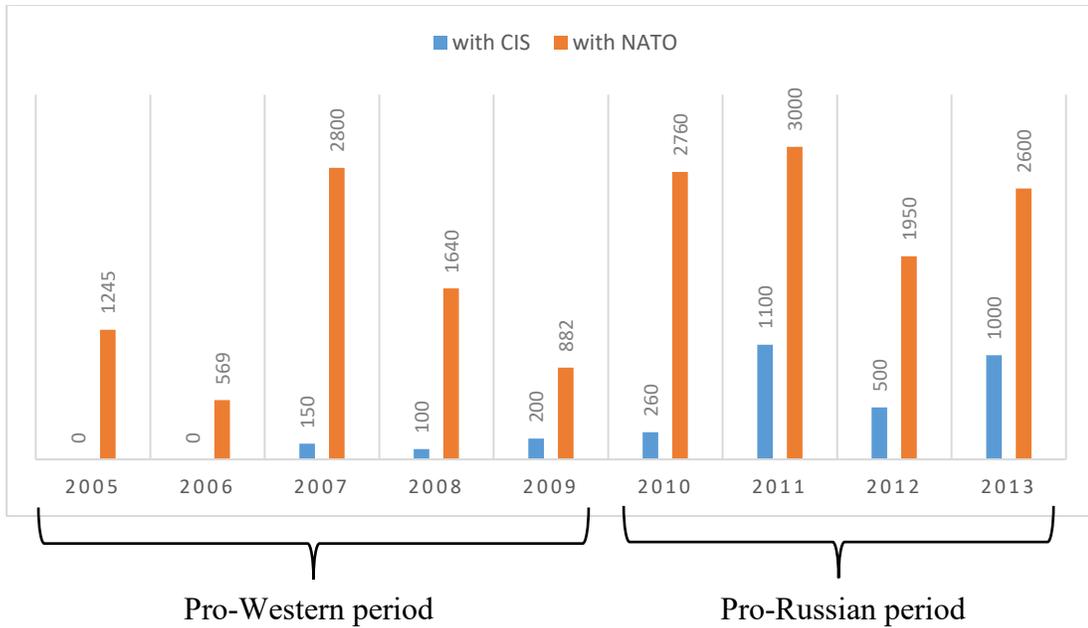


Figure 3. The Number of the Ukrainian Military Personnel Participating in Multinational Exercises during 2005-2013

*Source:* Created by author using data from The Ministry of Defence of Ukraine, *White Book 2005: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2006: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2007: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2010: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2011: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2012: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2013: The Armed Forces of Ukraine*.

The analysis of the third period shows the systematically increasing role of the Armed Forces of the Russian Federation and others CIS member countries in the training system of the Ukrainian Army with the simultaneous saving of the NATO partnership relations.

Finally, the analysis of the last period 2014-2017 shows the stability in Ukraine – NATO relations. In the beginning of the period, the Ukrainian Army participation in

multinational exercises had only pragmatic sense to increase units' capabilities, but since 2016 the Army units' involvement in exercises have reached historical levels, with 6000 personnel and 200 combat vehicles participating.<sup>84</sup> At the same time, the Russian aggression against Ukraine caused all cooperation with Russia to stop, all exercises with the CIS countries were canceled, and the events of IPAP were re-established to the level of 2005-2009 period to 210-230 on average.<sup>85</sup>

During the long period of participation in the NATO multinational exercises, the Ukrainian Army involvement was dependent on the political situation in country which provided the National foreign vector's direction. Today the Ukrainian Army increased its level of involvement in NATO multinational military training events by increasing troop participation, and providing its own training areas for most NATO exercises conducted with the Ukrainian forces. This enlarges the Ukrainian Army role in the common system of the NATO training, as well as stabilizes the processes required for the Ukrainian forces preparation for the future NATO-led operations.

#### The Ukrainian Army Participation in the PARP

In order to provide partner states with the ability to prepare forces that can work together with NATO members, as well as to create a mechanism for the exchange of information on defense and budget planning, a new NATO initiative was launched under

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<sup>84</sup> The Ministry of Defence of Ukraine, *White Book 2016*.

<sup>85</sup> Independent Culturological Journal, *HATO: Партнерство заради миру* ["NATO: The Partnership for Peace"], no. 77 (2014), accessed 02 April 2019, [http://www.ji.lviv.ua/n77texts/Uchast\\_zbrojnyh\\_syl\\_Ukrainy.htm](http://www.ji.lviv.ua/n77texts/Uchast_zbrojnyh_syl_Ukrainy.htm).

the Pfp program – Planning and Review Process (PARP) at the Brussels summit in 1994.<sup>86</sup>

NATO, according to the Pfp Framework, is committed to implement PARP with partners to set up a framework for identifying and assessing the capabilities that can be used in multinational exercises, and the preparation and conduct of operations with the Alliance forces.<sup>87</sup>

As the PARP is based on a volunteer basis only, the Ukrainian government showed its loyalty toward Euro-Atlantic integration when it joined the PARP Program in 1995.

The analysis of the first period (1994-2004) shows the growing interest of Ukrainian military authority to follow the PARP Interoperability Goals that were renamed as the Partnership Goals in the beginning of the second period (in 2005-2006).

During the period 1994-1999 the Ukrainian authorities adopted 47 Interoperability Goals with the aim to close the Ukrainian Armed Forces capabilities gaps with the NATO ones.<sup>88</sup> The main tasks for the Ukrainian Army determined by the Partnership Goals are:

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<sup>86</sup> Army Online, *Процес планування та оцінки сил* [“Planning and Review Process”], accessed 22 February 2019, [https://army-online.at.ua/publ/ukrajina\\_nato/naprjami\\_spivpraci/proces\\_planuvannja\\_ta\\_ocinki\\_sil/20-1-0-24](https://army-online.at.ua/publ/ukrajina_nato/naprjami_spivpraci/proces_planuvannja_ta_ocinki_sil/20-1-0-24).

<sup>87</sup> Electronic Library of the International Relations, *Програма “Партнерство заради миру”* [“Partnership for Peace Program”], accessed 27 April 2019, <http://kimo.univ.kiev.ua/MOrg/61.htm>.

<sup>88</sup> Army Online, “Planning and Review Process.”

1. improvement of the Army training systems to bring it to Euro-Atlantic standards, and development of new NCO training;
2. improvement of the soldier's individual training such as field training, language courses, familiarity with NATO staff procedures and interoperability in multinational headquarters;
3. enhancement of the military units' capability to fulfill orders independently during international peacekeeping operations;
4. introducing NATO standards in all fields of military management bodies of the Armed Forces and to adapt national regulatory and legal documents;
5. the Army armament and equipment modernization in accordance with present-day requirements.<sup>89</sup>

These Interoperability/Partnership Goals are traced during the all periods of PARP with the similar numbers of goals, determining the Army units plans for preparation and participation in the NATO-organized training, exercises, evaluations and others NATO-led activities.

Analysis of the Ukrainian Army participation in PARP shows the highest level of the Army involvement was during 2005-2006. In 2005 six Army units were designated to participate in the Program from the 15 units in the Armed Forces.<sup>90</sup> The next year the

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<sup>89</sup> The Ministry of Defence of Ukraine, *White Book 2007*.

<sup>90</sup> The Ministry of Defence of Ukraine, *White Book 2005*.

number of the Army units was increased to eight.<sup>91</sup> These Army units were the basis for the PARP from the Ukrainian side and stayed the same throughout the period.

During the 2010-2013, only three Army units from the eight declared to participate in PARP were evaluated:

airmobile battalion HQs with three airmobile companies;

CBRN company, and;

engineer company.

It took seven years to make two of eight Army units interoperable with NATO (CBRN company and engineer company), and partially prepare the airmobile battalion (battalion HQs and three airmobile companies)<sup>92</sup> (see table 1).

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<sup>91</sup> The Ministry of Defence of Ukraine, *White Book 2006*.

<sup>92</sup> The Ministry of Defence of Ukraine, *White Book 2007*; The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009*; The Ministry of Defence of Ukraine, *White Book 2010*; The Ministry of Defence of Ukraine, *White Book 2011*; The Ministry of Defence of Ukraine, *White Book 2012*; The Ministry of Defence of Ukraine, *White Book 2013*.

Table 1. Self/NATO Evaluations of Ukrainian Army Units Declared for PARP						
	2008	2009	2010	2011	2012	2013
Airmob BN HQs		SEL1**	Was not evaluated, and lost its qualification			
Airmob company	SEL1*	After 2 years required re-evaluation		SEL1*	NEL1*	SEL2*
Airmob company		SEL1**	Was not evaluated, and lost its qualification			
CBRN company	SEL1*	NEL1**	SEL2	NATO interoperable, Qualified for NRF		
Eng company	SEL1*	NEL1**	SEL2	NEL2*	NATO interoperable	

\* NATO interoperable  
 SEL 1 – Self-evaluation Level 1  
 SEL 2 – Self-evaluation Level 2

\*\* partially interoperable  
 NEL 1 – NATO Evaluation Level 1  
 NEL 2 – NATO Evaluation Level 2<sup>93</sup>

*Source:* Created by author using data from The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2010: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2011: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2012: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2013: The Armed Forces of Ukraine*.

Unfortunately, the lingering impact of the 2014 Ukrainian-Russian conflict has demolished the progress of the Ukrainian Army participation in PARP as the declared units were used in combat during the long period. But, according to the NATO OCC E&F requirements, the unit/capability interoperability evaluation is only valid for two

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<sup>93</sup> The evaluation levels are explained in Definitions of terms of the Chapter 1.

years.<sup>94</sup> So, since 2016 the Ukrainian Army hasn't had any NATO interoperable units. The process restarted from the beginning by conducting national Self-Evaluation (SEL1) of the designated Ukrainian Army units during the multinational exercises "Rapid Trident-2017" in September 2017.<sup>95</sup>

Finally, the analysis of the Ukrainian Army participation in PARP shows the difficulties of the unit evaluation processes that required a long period of time and extra resources for preparation. The Ukrainian Army is regaining its capabilities to achieve the determined level of interoperability with NATO, but the Ukrainian experience of participation in NATO evaluation events shows that this process cannot be achieved quickly, and it requires a long period of preparation to follow to the NATO processes. So, while the usual interval between evaluations is one year,<sup>96</sup> it takes from 3 to 4 years to make Army unit interoperable with NATO. Additionally, it is worth paying attention to the number of units declared, as a large number may disperse resources for unit training and supply too thinly. That causes the low quality of preparation of the unit declared for PARP, and leads to failure during NATO evaluation.

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<sup>94</sup> NATO Military Partnerships Directorate, *OCC E&F Handbook*.

<sup>95</sup> Новое время, *Rapid Trident-2017: В Минобороны рассказали о заключительном дне учений* ["The Ministry of Defense reported the last day of the exercises"], September 2017, accessed 12 March 2019, <https://nv.ua/ukraine/events/rapid-trident-2017-v-minoborony-rasskazali-o-zakljuchitelnyj-den-uchenij-1894018.html>.

<sup>96</sup> Allied Joint Force Command Brunnsom, "Operational Capabilities Concept Evaluation and Feedback Programme."

## The Ukrainian Army Role in the NATO Peacekeeping Operations

The peacekeeping mission for Ukraine is a key activity because it is considered as a means of strengthening its National Security through the creation of a stable foreign policy environment, as well as contributing to the strengthening of European security. Due to peacekeeping operations, Ukraine is considered as an important subject of international relations, and raises its international prestige by demonstration of the peaceful policy.<sup>97</sup>

The Ukrainian Army participation in Peacekeeping operations started in 1992 shortly after the declaration of the independence of Ukraine. This year the 240<sup>th</sup> special battalion of the Ukrainian Army started its mission in Sarajevo, Bosnia and Herzegovina with 412 personnel. Since December 1995 Ukraine forces have participated in this NATO-led operation.<sup>98</sup>

In 2007 the Ministry of Defense reported that Ukraine is only one country of all NATO partners which participates in all four NATO-led operations:

International Stabilization Afghan Forces (ISAF);

International peacekeeping forces in Kosovo (KFOR);

NATO Training Mission in Iraq (NTM-I); and

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<sup>97</sup> Andrii Leha, *Основні напрямки діяльності українських миротворчих підрозділів (1992 – 2006)* [“The main activities of the Ukrainian Peacekeeping Forces during 1992-2006”] (Institute of History of Ukraine, National Academy of Sciences of Ukraine), 485-494, accessed 16 March 2019, <http://history.org.ua/JournALL/xxx/12/31.pdf>.

<sup>98</sup> Bohdan Levyk, “Involvement of post-Soviet Republics in UN and NATO Peacekeeping operations,” (Lviv Polytechnic National University, Lviv, Ukraine, June 2014), 84-91.

Multinational Forces in Iraq (MNF-I).<sup>99</sup>

The involvement of the Ukrainian Armed Forces in NATO Peacekeeping operations compared to UN missions is shown in Figure 4:

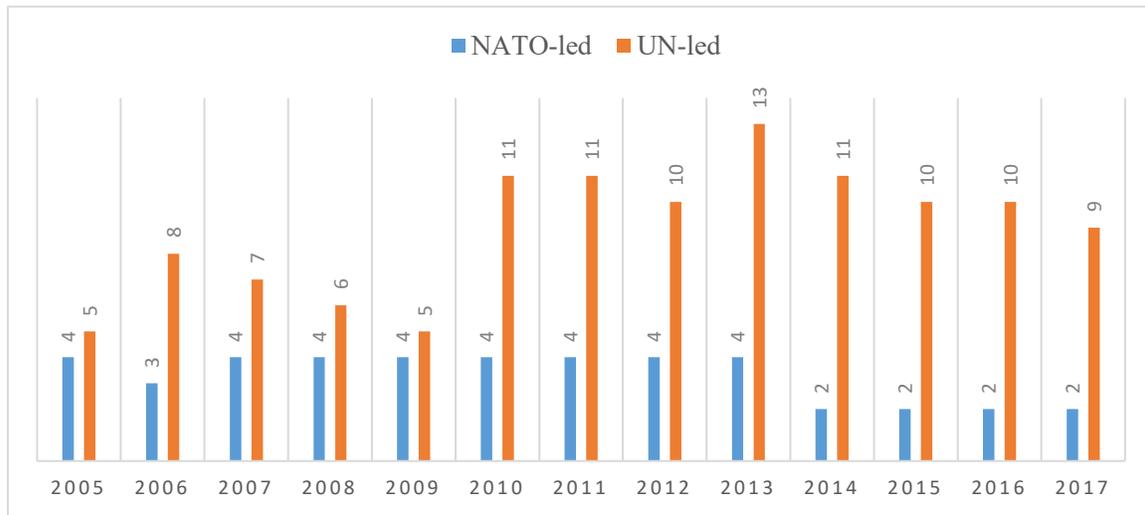


Figure 4. The Ukrainian Army Participation in Peacekeeping Operations

*Source:* Created by author using data from The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2010: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2011: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2012: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2013: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2014: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2015: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2016: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2017: The Armed Forces of Ukraine*.

<sup>99</sup> The Ministry of Defense of Ukraine, *White Book 2007*.

The analysis of the Ukrainian Army participation in Peacekeeping operations demonstrates the stability of military forces participation in the NATO-led operations during all periods from 1992 to 2013 until the Russian aggression against Ukraine. The growing interest from the Ukrainian authority's side to increase the level of the Army readiness as well as its level of interoperability with international forces helped to support this tendency.

The period of pro-Russian foreign policy (2010-2013) did not change the situation with the Army participation in the NATO-led operation, but changed the percentage of NATO operations to UN ones by increasing the number of UN-led mission where the Ukrainian Forces were involved.

The reasons during that time for the pro-Kremlin Ukrainian government to keep relations with NATO through Peacekeeping could be several. First, the budget of the Armed Forces was very limited, and the training of forces was conducted in less than 50 percent of the program requirements.<sup>100</sup> The participation in peacekeeping missions increased the unit's combat readiness with less cost by exercising practical drills outside the home country, and receiving foreign experience from the NATO members and partners.

Secondly, as was mentioned in the previous paragraphs of the thesis, the pro-Russian government of 2010-2013 tried to allay people's worries concerning the NATO policy vector freezing by keeping society informed that the Ukrainian Army involvement to the NATO-led operations remained at the same level.

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<sup>100</sup> The Ministry of Defense of Ukraine, *White Book 2010*.

The Ukrainian Army participation in Peacekeeping operations with NATO and the UN during 1992-2013 appears to have been dictated by strong desire of the Ukrainian authorities to show its loyalty to the international security system, to create close relation between the Ukrainian and NATO military colleagues, and to increase the level of the Army units training in conditions of lack of any combat experience of the Ukrainian Army during the peacetime period.

### Part 2: The Gaps on the Way to Gaining Interoperability

The process of gaining interoperability with NATO for the Ukrainian Army has a lot of obstacles on its way. To analyze these issues, the DOTMLPFI model was used with the emphasize on its three element – Doctrine, Training and Material.

#### Doctrine

All Alliance members and partner nations have to be able to operate together for the success of multinational operations: “Without common doctrine, tactics, techniques and procedures, Alliance members and partners would be left wanting for the proper way to employ together operationally”.<sup>101</sup>

The question of Doctrine interoperability is crucial for the Ukraine military that used old Soviet Union doctrine and field manuals. Until 2013 main manuals were translated into the Ukrainian language from Russian, usually without any changes. The process of deep reforms in Doctrine started in 2015. The focus for Doctrine element

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<sup>101</sup> Aksit, *Smart Standardization: A Historical and Contemporary Success at NATO*.

reformation was the process of Standardization with an aim to change the Ukrainian Army standards to be fully interoperable with the NATO ones.

The main task for the NATO standardization was determined as achieving operational and technical interoperability with the armed forces of the NATO members, as well as observance of the standards adopted by the NATO members regarding the activities and distribution of functions and core tasks.<sup>102</sup>

Actually, the process of standardization in the Ukrainian Army started in 2013 with an attempt to unify all existed material of collective and individual training in well-structured and organized forms similar to the NATO STANAGs. Later, the standardization touched other spheres of the military life.

Unfortunately, this process in the Ukrainian military was conducted without synchronization with NATO standards. The analysis of the standards from the archives of official website of the Ukrainian Ministry of Defense (<http://www.mil.gov.ua>) created since 2013 shows that the standards at the beginning of standardization period were created in a very limited amount – covering only tactical level Army units up to battalion size. Besides that, these documents don't include any improvements from the old manuals.

Also, the personnel responsible for the creation of these standards didn't have the requisite education and experience. So, the organization responsible for the standardization did not yet exist. In order to reform the system of standardization in the

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<sup>102</sup> Ukrainian Military Pages, *Впровадження стандартів НАТО у Збройних Силах: підсумки 2016-20* [“The NATO Standards Implementation into the Armed Forces: Results of 2016”], August 2017, accessed 16 March 2019, <https://www.ukrmilitary.com/2017/08/stanag.html>.

area of the Ukrainian defense, in 2016 a joint military organization was created with the determined functions to conduct the implementation of general management and coordination of the activities of the relevant military structures responsible for the implementation of NATO standards.<sup>103</sup>

Since the conflict in Eastern Ukraine in 2014, the methodology and approach towards the standardization process in Doctrine were significantly changed. As Ukrainian government moved towards NATO standardization, all areas of the military activity started to develop its documentation according to the NATO standards. So, the NATO's Allied Publications (APs) and STANAGs become a framework for the Ukrainian tactical and operational level documents that covered all levels of the Army that had gaps in the modern doctrinal base.

The initiation of the deep integration of the Ukrainian Army with the NATO standards is put into the Strategy of the National Defense of Ukraine that states the goal of “gaining of maximum interoperability with the military forces of the NATO members through the introduction of the standards of the Alliance”.<sup>104</sup>

The analysis of the NATO Standard implemented in the Ukrainian Army shows essential progress but it's not enough to affirm the possibility to adopt all required standards during the next two years. So, the question of interoperability in standardization

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<sup>103</sup> Ukrainian Military Pages, “The NATO Standards Implementation into the Armed Forces: Results of 2016.”

<sup>104</sup> President of Ukraine, *Стратегія Національної Безпеки України [National Security Strategy of Ukraine]*, Decree no. 287/2015 (Kyiv, Ukraine: President of Ukraine, 26 May 2015), chapter 4, accessed 14 February 2019, <https://zakon0.rada.gov.ua/laws/show/287/2015>.

area needs much more time to be decided. Additionally, implementation of the NATO standards requires development of the respective national documents, as the NATO standard cannot exist alone in the contemporary legislative base of the Ukrainian Armed Forces. The number of the NATO standards adopted for the Ukrainian Army during 2016-2017 are listed below (Table 2):

Table 2. The Process of NATO Standardization in the Ukrainian Army during 2016-2017				
Functional Area	Implemented NATO Standards		Developed National Documents	
	2016	2017	2016	2017
Military policy, security and strategic planning	-	3	-	3
Operational activities of HQs	-	2	-	2
Weapons, military and special equipment evaluation and testing	-	20	-	20
Weapons, military equipment and special equipment requirements	-	5	-	5
Military standardization	1	2	3	3
Military codification	7	7	6	6
Military education	1	1	2	3
Military and civil cooperation	1	1	1	1
NBC protection	17	17	2	2
Information warfare	3	3	2	2
Medical support	11	11	7	9
Communications and Information	3	7	1	7
Logistics support	3	1	4	2
Total in the Armed Forces	126	167	78	135

*Source:* Created by author using data from The Ministry of Defence of Ukraine, *White Book 2016: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2017: The Armed Forces of Ukraine*.

The process of Ukrainian National Doctrine reformation, and the NATO Standards implementation was started in 2015. The next years have shown great progress by accepting 126 NATO standards with 78 national documents developed. The year 2017 shows slight growth of Standards implemented, but with significant increase in the number of the national documents. It shows great progress by the Ukrainian standardization office which concentrated its efforts on critical national supporting documents key to the reformation processes in the yearly phases, knowing the Ukrainian military personnel responsible for implementing Standards in the Ukrainian Army don't have enough experience to work with NATO documentation, but would willingly accept national ones.

The other positive factor is an increasing attention towards following areas: military policy, security and strategic planning; operational activities of HQs; and, weapons, military and special equipment requirements, evaluation and testing. This increases the spectrum of the NATO Standardization in the Ukrainian Army by changing not only the operational standards, but administrative and material ones.

Over all analysis of the doctrinal standardization in the Ukrainian Army according to the NATO requirements reflects sequential approach towards Army reformation, but the same time it shows the slow tempo. So, at the same rate of adopting NATO standards during future years, the Ukrainian Armed Forces will require more than ten years to implement all 1169 NATO Standards listed in the official NATO database<sup>105</sup> and more

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<sup>105</sup> NATO Standardization Document Database, "List of Current NATO Standards."

then twelve years for adoption of Standards declared for the NATO PfP partners (up to 1300 Standards).

### Training

While Doctrine and Standards adopted in the Ukrainian Army increase standardization and play a crucial role in the initiation of the process of interoperability with the NATO forces, Training is a main element of practical realization of Doctrine to achieve the required level of interoperability with the Alliance.

The training of the Ukrainian Army units assigned to participate in the OCC E&F Program was conducted in a common system of the Ukrainian Army Combat Training in accordance with the National requirements, and requirement of the NATO documents: OCC E&F Handbook, Collective Training and Exercise Directive, and Education and Training Directive which were discussed in Chapter 2.

The analysis of the Army units training during the period 1995-2013 shows a great challenge for the Ukrainian Army Training Department to include the elements of the NATO training program in the 10-month training cycle. The main document of the Ukrainian Army training, The Army Combat Training Program, was the static document for the Army training and mainly reflected the Soviet style point of view with the emphasize on defense and offence without consideration of other forms and methods of combat actions as well as joint actions.<sup>106</sup> The Army commanders had to organize their

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<sup>106</sup> Н. Efimof, *Основні напрямки удосконалення програм бойової підготовки сухопутних військ Збройних Сил України й інших військових формувань (правоохоронних органів) з урахуванням виконання спільних завдань в структурі воєнної організації держави* [“Main directions of improvement of the Army Combat Training Programs and other military formations (law enforcement agencies), taking into account the implementation of joint tasks in the structure of the military organization of

annual Unit Training Plans according to this Program. This factor significantly limited commanders' ability to train their units sufficiently. So, the unit's preparation for the NATO evaluation was an additional task that had to be conducted outside the common system of the Army Combat Training Program.

The analysis of the current status of the Army units' training shows significant changes to the methods of training organization. The Concept of Training of the Armed Forces of Ukraine gives flexibility to the commander to organize training of the subordinate unit. This factor affords the necessary changes in the Unit's Training Plan according to the gaps in training identified during the last unit evaluation. Additionally, the Concept determines three cycles of training, two months each, that satisfy contemporary requirements to train professional soldiers, canceling the previous conscript's training system with the ten-month cycle.<sup>107</sup>

The limited funding of the Armed Forces combat training didn't allow the possibility of conducting full-size units' training. The funding of the Army units' training is shown in the Chart (Figure 5).

The Chart shows differences between real requirement for the unit training, and actual budgeting. During the 2005-2008 period, the financing of the training was satisfied only at around 50 percent of required. After the World financial crisis of 2008, the

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the state"] (Hetman Petro Sahaidachnyi National Ground Forces Academy, Lviv, Ukraine, 2013), 22.

<sup>107</sup> The Ministry of Defence of Ukraine, *Концепція підготовки Збройних Сил України* [*The Concept of Training of the Armed Forces of Ukraine*], No 95 (Ukraine: Ministry of Defence, February 2016), accessed 19 November, 2018, <https://www.ukrmilitary.com/2016/02/concept-of-the-armed-forces-of-ukraine.html>.

financing of the Ukrainian Army was less than 20 percent of required, and even increased budgeting in 2013 only returned the situation to pre-crisis period funding.

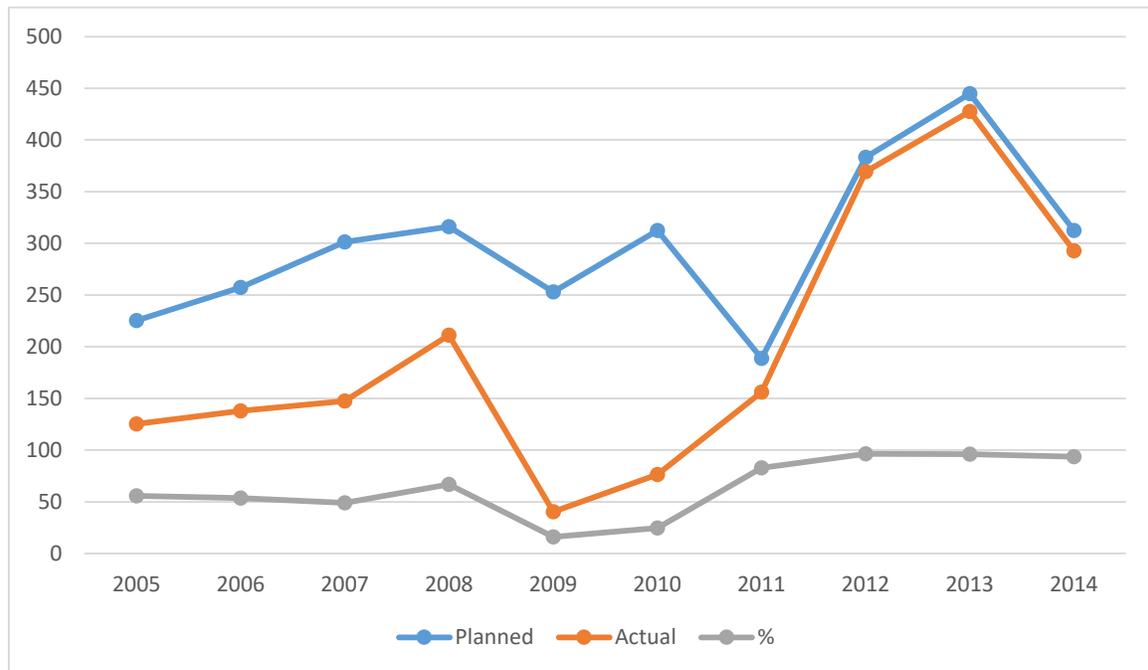


Figure 5. The Ukrainian Armed Forces Training Funding during 2005-2014 (in millions of Ukrainian hryvnas)

*Source:* Created by author using data from The Ministry of Defence of Ukraine, *White Book 2005: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2006: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2007: Defence Policy of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2008*; The Ministry of Defence of Ukraine, *White Book 2009: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2010: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2011: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2012: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2013: The Armed Forces of Ukraine*; The Ministry of Defence of Ukraine, *White Book 2014: The Armed Forces of Ukraine*.

The analysis of the units' training financing reflects the gap that existed during the period before 2014 – inadequate budgeting created the slow tempo of the Army

training improvement that significantly limited the ability for the Army to organize unit training effectively and conduct its preparation to participate in NATO evaluation activities. The gradual increasing of the Army training budget started since 2015 when the required and actual budget have become equal. Additionally, the budget increased 1.535 million hryvnas that is 5 times bigger than the highest one during the period before the Ukrainian-Russian conflict.

The sufficient budget of the current period allocated for the Army units' training is a positive factor reducing the time for the Army units' preparation to conduct its missions according to the NATO requirements as a result of full spectrum individual and collective training supported by requirements of modified Ukrainian National and NATO documents concerning the Army unit's training.

The analysis of the individual and collective training of the Ukrainian Army formations from the Annual the Ministry of Defense of Ukraine "White Book" (2005-2017) shows the improvements of the methods and approaches used for the Army units' preparation to participate in NATO-led operations. So, the standards of individual and collective training are under the review to make changes to be more interoperable with the NATO standards.

Individual and collective training programs supported by NATO partners significantly increasing the role of the NATO mobile training groups, enabled the Ukrainian Army to effectively train their units in any conditions for any mission. The

multinational exercises with NATO members and partners were integrated in the general Armed Forces training system.<sup>108</sup>

### Material

The Material element is very connected with the Doctrine and Training. It works as a consequence of the Doctrine adopted and supports the Training as a way of gaining interoperability with the NATO forces.

According to the last report of the Ministry of Defense of Ukraine, the capacity of the National Defense industry is not enough to satisfy contemporary requirements without external assistance. The insufficient level of quality of the Army equipment is because of a lack of qualified personnel, aging of the production power of military factories, and the growing technological gap between the Ukrainian defense industry and the leading world countries.<sup>109</sup>

The analysis of equipment and armament that were accepted by the Ukrainian Army during the last period after the Ukrainian-Russian conflict shows the priority of the Army acquisition modernizing old equipment instead of obtaining new material. During 2015-2017 the funding of the Ukrainian Army in area of equipment and armament was less than 30 percent of the required amount. At the same time, only 7 percent of finances are reserved for the development of new systems of armament and military equipment, with 93 percent for modernization of the old ones.<sup>110</sup>

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<sup>108</sup> The Ministry of Defense of Ukraine, *White Book 2017*.

<sup>109</sup> *Ibid.*

<sup>110</sup> The Ministry of Defense of Ukraine, *White Book 2015*.

The existing Army equipment mainly represented old Soviet style systems which absolutely don't meet NATO standards and, to be interoperable with the Alliance forces, requires serious modernization.

The modernization of the current Army material improves its performance compared to the modern requirements but doesn't support serious modernization of the total force. The Ukrainian State Concern "UkrOboronProm", as the main organization responsible for the Ukrainian Army acquisition, tries to change the situation with the material modernization. Nowadays, the Concern starts its attempts for the significant changes of the situation concerning the Ukrainian-NATO interoperability in military industry. So, the analysis of the products developed by the Concern reflects the tendency of increasing production of materials that supports NATO standards. For example, new development of the Concern automatic rifle M4 – WAC-47 uses Ukrainian ammunition (7.62x39 mm), but it is possible, in field conditions and in less than 20 seconds to change the receiver group to use the 5.56x45 mm cartridge that is used in most NATO countries.<sup>111</sup>

The modernization of the Army armament to make it interoperable with the NATO standards is supported by other large company of the Ukrainian military industry, such as the enterprise "FORT" that conducts its own research to promote modern

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<sup>111</sup> Ukraine Defense Industry, "UkrOboronProm," accessed 19 March 2019, <https://ukroboronprom.com.ua/uk/produktsiya-ta-poslugy/produktsiya-vijskovogo-pryznachennya/striletske-ta-raketno-artylerijske/4845.html>.

technology. The main automatic rifle produces by the company FORT-221 and FORT-224 also support both types of ammunition.<sup>112</sup>

The analysis shows that Ukrainian Army armament and military equipment currently don't meet the Alliance requirements, and acquisition of the NATO interoperable material needs funding increased significantly as the current budget is not enough even for the current modernization effort. At the same time, the existing Ukrainian military industry has the potential to develop its power step-by-step to meet the rearmament requirements in accordance with NATO standards.

### Part 3: The Influence of the Conflict in Eastern Ukraine on the Ukrainian Army's Integration with NATO

Since the Russian aggression in Ukraine in 2014, the Ukrainian military started its deep reformation. After the Minsk agreements of temporary cease fire in Eastern Ukraine in September 2014, the Ukrainian military authorities got the breathing space required for re-establishing the NATO integration processes. The Armed Forces resumed its participation in the NATO OCC E&F Program. As a result, the Army units that were declared for participation in this Program had to balance between the combat action as a part of Anti-Terrorists Operation in Eastern Ukraine and preparation for the NATO evaluations for the NATO-led missions.

The influence of the conflict on the Ukrainian Army functions and its ability to make rapid changes required for the Army reformation process was reflected throughout

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<sup>112</sup> Fort, "Fort-14PP," accessed 29 March 2019, <http://www.fort.vn.ua>.

the DOTMLPFI model. The author focused on the impact of the conflict on Doctrines, Training and Material elements.

### Doctrine

The analysis of Doctrine elements shows the gap of the standardization process in the Ukrainian Army. While the full interoperability between the Ukrainian and NATO members' forces has not been achieved, the Ukrainian Army units must use a double doctrinal base. During the conduct of the mission in Eastern Ukraine they utilize the Ukrainian Army's field manuals and standard operation procedures that were created based on Soviet documents. But, after returning to home base, the units should follow the Alliance's standards. That creates a doctrinal collision for the Ukrainian Army units in preparing and conducting assigned missions. Besides, the efforts in the preparation of units are disjointed and a lot of time is wasted developing similar capabilities in different ways.

At the same time the development of the modern field manuals was accelerated because of the conflict. The author's brief analysis of the draft manuals, procedures and instructions for the Ukrainian Army as well as tactics, techniques and procedures developed by the Ukrainian Armed Forces Training Department (J-7) and the Training Department of the Army (G-7) shows that new techniques applied there were mainly based on the experience of the Anti-Terroristic operation in Eastern Ukraine without any consideration of the NATO documents.

Modernized procedures applicable for the Army units in the Eastern Ukraine conflict area, but may not be appropriate for the units acting as a part of the multinational forces in the NATO-led mission. The military decision making process in the Ukrainian

Army, according to the updated documents, doesn't have any significant changes from the Soviet manuals. As one of the examples – the last version of the Ukrainian Army field manual of tactical level in comparison with the previous version has more emphasis on stability actions that have become a component of the contemporary combat actions in Eastern Ukraine after the cease fire period. The same time, the main visible improvement according to the NATO standards is changing the colors of enemy and friendly forces. Previously for enemy marking the Ukrainian Army used blue color, now blue color is used for the friendly forces.<sup>113</sup>

Because of this so called doctrinal collision, the planners are limited in the detailed planning time required to keep records and documentation in both ways – modernized Soviet and required by the NATO standards. During the unit's preparation for the future NATO-led operation, commander should focus his efforts on the NATO documentation requirement of the CREVAL. But the Army unit still belongs to the Ukrainian military system that requires it follow the Ukrainian regulations. Even a brief analysis of the number and order of work required filling out the documentation indicates a similar high level of bureaucracy much like the Soviet one, showing the time wasted in developing inefficient plans using paper maps instead of overlays.

While the main theses and articles of the Ukrainian military researchers referred to the experience of the Anti-Terrorists Operation in Eastern Ukraine and requirements of the NATO standards, the practice shows that the updated doctrines only of the strategic

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<sup>113</sup> The Army Command of the Ministry of Defense of Ukraine, *Бойовий статут механізованих і танкових військ Сухопутних військ Збройних Сил України* [*The Field Manual of the mechanized and tank troops of the Army of the Armed Forces of Ukraine*], No. 605 (Kyiv, Ukraine: General Staff, 2016).

level are based on these experience, the Army manuals and operational documents of the tactical level don't have significant improvement towards NATO integration.

### Training

Training of the Army units during peace time is conducted in cycles of training with three periods each – base, intensive, and supportive periods.<sup>114</sup> It creates conditions for the Army units' effective training for its preparation to participate in the NATO OCC E&F Program. The unit designated for the Program has a structured training plan for the following academic year with the consistent increasing of capacity (base and intensive periods), and time available for the self-evaluation during the support period.

The conflict in Eastern Ukraine provoked the declaration of a so called Special Period which assigns special status to the Armed Forces within the state system, and creates additional requirements for the all aspects of military life.

Therefore, the Ukrainian Army training during the Special Period is organized according to the standards of training without training cycles and training periods, but take into account the current level of task training, manning of the military command and military units, the level of their, operational (combat) training requirements, status, availability and serviceability of weapons, available stocks of material and technical means.<sup>115</sup>

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<sup>114</sup> The Ministry of Defense of Ukraine, *The Concept of Training of the Armed Forces of Ukraine*, Chapter 4.

<sup>115</sup> *Ibid.*, Chapter 3.

The analysis of the influence of the conflict on the Army training displays the complexity of the training planning for the Army units declared to participate in the NATO OCC E&F Program. The biggest challenge is the necessity to provide unit's training for the requirements of the Eastern Ukraine area, but at the same time to prepare unit for the participation in NATO evaluation according to the declared unit's capabilities of the NATO PoF that reflects similarity with the Doctrines issue mentioned prior.

The advantage of the Special Period is allowing unit commanders to have flexibility during the planning of the unit's training. The commander can balance the time necessary for the unit's training between requirements of the existed conflict, and future NATO-led operations. The gap exists in the level of the success of the unit's training.

The effectiveness of the training depends on the qualifications of the instructors. The capacity of the Ukrainian Army instructors is limited due to lack of NCOs and junior officers able to train unit according to the NATO standards. This issue was partially solved with the use of the mobile training groups from the NATO members, such as Canadian military training mission UNISEF that has been trained around eleven thousand Ukrainian soldiers over the last four years.<sup>116</sup> The role of such training groups is significant in training of the Army units according to the NATO standards, but it doesn't cover full requirements for training because their efforts are concentrated on the soldier's specialized training, and has limited resources to fill the gap needed for the Army unit's training.

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<sup>116</sup> Європейська Правда, *Міжнародна безпека та євроінтеграція України* [“International security and Eurointegration of Ukraine”], March 2019, accessed 22 April 2019, <https://www.eurointegration.com.ua/news/2019/03/18/7094108/>.

Finally, the analysis of the Army unit's training shows that the influence of the conflict within the Ukrainian territory on the Training element of DOTMLPFI model has dual consequences. From the one side, it has great positive impact due to significant increasing of funds for the Army's training. But, from the other side, it has negative influence of doubled training directions due to efforts dispersal.

### Material

The Material is one of the most problematic elements of the force management model concerning the Ukrainian Army because of consequences of the Russian aggression against Ukraine.

The war requires using the existing materials as they are easier to fix and supply. Most of the logistics stores of the Ukrainian Armed Forces are the Soviet style armament and ammunitions, during war time it isn't effective to finance new armaments instead of using what one already has. As a result, the modernization part of the material budget got more than 90 percent of total funding.<sup>117</sup>

The analysis of the Army materials shows less priority for the acquisition of the modern equipment that supports NATO standards, while the manufacturing power develops its capability to produce both lines of equipment – NATO and Soviet. As funding of Army acquisitions is not sufficient and satisfies only about 30 percent of

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<sup>117</sup> The Ministry of Defence of Ukraine, *White Book 2015*; The Ministry of Defence of Ukraine, *White Book 2016*; The Ministry of Defence of Ukraine, *White Book 2017*.

requirements<sup>118</sup>, the discussion about creating a balance between modernization and adoption of the new NATO interoperable equipment is inappropriate for the current situation.

Analyzing the influence of the conflict on the Army material acquisition program is worth discussing, particularly the role of the volunteer organization in the Army acquisition. The Ukrainian volunteer phenomenon became famous for its self-sacrifice and the numbers of citizens' involved that resulted in the alternative method of the Army units' supply during the war time.

The Ukrainian volunteer organizations were created as non-governmental organizations with the task to supply Ukrainian troops in the areas that had weaknesses in acquisition. Starting with food supply in yearly 2014, these independent organizations increased their capacities significantly until became able to supply combat units with expensive up-to-date equipment. Usually supporting designated units, volunteers communicate directly with the unit's commander to provide the unit with the missing material.

The role of Ukrainian volunteers was recognized worldwide. The fifth President of Ukraine Petro Poroshenko emphasized that "the assistance of volunteers remains important for the Ukrainian army and now, when the Army is fed up, dressed, armed ...

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<sup>118</sup> The Ministry of Defence of Ukraine, *White Book 2015*; The Ministry of Defence of Ukraine, *White Book 2016*; The Ministry of Defence of Ukraine, *White Book 2017*.

Volunteer activities have new priorities. Volunteers have been and will remain reliable partners of the state in strengthening and rebuilding of the Armed Forces”.<sup>119</sup>

In conclusion, the Material element of the Army has had great impact on the conflict in Eastern Ukraine as it attracts more resources for the modernization of existing Soviet style equipment instead of funding the development of the modern NATO interoperable one.

### Summary and Conclusions

The analysis of the secondary research questions of the thesis discussed in Chapter 4 lead to the common understanding of the issues existing in the way the Ukrainian Army achieves interoperability with NATO. The elements discussed here were applicable for the Army units declared to participate in the NATO OCC E&F Program as for the units that are planned to be included in this Program.

Results of the analysis will be reflected in the following Part that discloses the answer to the primary research question of the thesis: What are the Ukrainian Army’s abilities to achieve interoperability with NATO by 2020?

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<sup>119</sup> ТСН Україна, *Волонтери залишаються партнерами держави у зміцненні ЗСУ – Порошенко* [“Volunteers remain partners of the State in strengthening of the Armed Forces of Ukraine – Poroshenko”], August 2018, accessed 14 February 2019, <https://tsn.ua/ukrayina/volonteri-zalishayutsya-partnerami-derzhavi-u-zmicnenni-zsu-poroshenko-1205508.html>.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

Ukraine is in a complicated position between democratic Western society and totalitarian post-Soviet space in the East. Having no option but to balance between these opposite powers, Ukraine accepted the side which it felt closer to – Western democracy. This choice provoked the occupation of some Ukrainian territory, and an ongoing armed conflict in its Western part. But at the same time, the Ukrainian society mobilized itself, and started global reformation that involved the Ukrainian Army in the process of significant changes and improvements. So, the Ukrainian Army became the basis for the overall Armed Forces reformation with the main tasks: to gain the level of readiness similar to the Armies of the NATO members, and to be able resist Russian aggression within Ukrainian territory.

The analysis conducted in Chapter 4 shows that the Ukrainian Army reformation process towards interoperability with the Alliance is on the proper path, but at the same time, it has a lot of challenges, which were determined through using the elements of the DOTMLPFI model.

With the purpose of this thesis to research the Ukrainian Army ability to gain required level of interoperability with the NATO as a part of the Euro-Atlantic integration process, Chapter 5 summarizes findings of the analysis conducted in previous Chapters, and includes recommendations for future studies and possible actions in the researched topic.

### Interpretation of Findings

The Ukrainian Army as an unwieldy post-Soviet mechanism requires much more time to gain necessary level of interoperability with NATO. The Ukrainian government timeline to gain NATO standards by 2020 for the overall Army is not achievable, as an example of the Army units declared for the NATO PoF and participated in the NATO OCC E&F Program.

As it was analyzed in the previous chapter, it requires more than five years for the unit to achieve the required level of interoperability with the NATO forces in case of all four positive evaluations' results. Besides, the existing gaps in the Army forces management system slow down the NATO integration processes.

However, the Doctrinal base is much closer to the NATO required level than others researched elements of the DOTMLPFI model – Training and Material. As the director of the Military-Legal Research Center Mr. Olexandr Musienko said none of the NATO member achieved all the 1300 NATO standards required. According to Musienko, even Poland, which long ago acquired membership in the Alliance, achieved the main NATO standards only several years ago. Ukraine is capable of fulfilling specific tasks and key criteria for obtaining the NATO Membership Action Plan (MAP) by 2020,<sup>120</sup> though the interoperability of the Armed Forces with NATO is not a critical factor, and it can be achieved later in parallel with the process of implementation of the MAP.

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<sup>120</sup> Savytskii Olexandr, *Перехід на стандарти НАТО: Верховна Рада зробила перший крок* [“Achieving of NATO standards: The Verkhovna Rada has made the first step”], December 2018, accessed 11 March 2019, <https://www.dw.com/uk/перехід-на-стандарти-нато-верховна-рада-зробила-перший-крок/a-46794356>.

For the Ukrainian Army the implementation of the NATO standards will significantly increase its capabilities as well as improve interoperability with NATO forces. It creates closer relations with the Training and Material elements of the Force Management model by contributing to the efficiency of resources dissemination, and improvement of the Army training system.

Analysis of the annual Ministry of Defense of Ukraine reports shows the advantages of the Harmonization of the national standardization system with standardization systems of the leading NATO member-countries. It will enable defense industry factories of Ukraine to achieve a qualitatively new level in the development, production, refurbishment and repair of weapons and military equipment to meet the needs of the Armed Forces, and open new markets for Ukrainian defense products.<sup>121</sup>

The Army training system has a lot of issues connected with the necessity to balance between requirements of the NATO OCC E&F Program and reality of the conflict in Eastern Ukraine. It disperses assets and requires more time for the unit's preparation. However, this element is the easiest to close the gap on. In the case of full doctrinal interoperability with the Alliance, and effective forces acquisition according to the NATO standards, the units' commanders, having their flexibility to plan training for the subordinate personnel, can organize sufficient training for their units within required terms. The examples of the Ukrainian Army units participated in the NATO OCC E&F Program during 2008-2013 period shows that even with the limited financing and lack of material the Army unit declared for the NATO PoF is able to be trained and evaluated to

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<sup>121</sup> The Ministry of Defense of Ukraine, *White Book 2017*.

achieve required level of interoperability with NATO. Limited resources and funding only postpone the time of the unit's readiness but not minimize the results.

The NATO official documents do not require 100 percent of material interoperability for the partners in case if their logistic support will be on them to fully satisfy the unit's requirements during the joint multinational operation. It's mean that the issue with the Soviet type of equipment and supply in the Ukrainian Army is not the critical factor for its interoperability with the Alliance. The same time, existed types of armament and ammunition require additional logistical support for the Army units during their participation in the NATO-led operation.

The positive factor of the Material acquisition program in the Ukrainian Army is the start of reforms conducted in the armament production sector of Ukraine. The building of systems that can be easily utilized with Soviet style ammunition and the NATO one creates transitory period for the Ukrainian Army on the way to achieving its full interoperability with NATO.

### Recommendations

The study was limited to analyzing the issues of the Ukrainian Army process to gain interoperability with NATO with focus on three elements of the Force Management model. For future research it is important to analyze other DOTMLPF elements.

Because of the universality of DOTMLPFI model, the thesis may be used by other branches of the Ukrainian Armed Forces, as well as other countries declared their units to the NATO PoF or utilizing NATO OCC E&F Program for finding gaps in the organizing, preparation and evaluation of their military forces.

The classification of the NATO evaluation reports provokes the necessity to continue research in this topic with developing of the NATO restricted thesis. Future restricted research may conduct deeper analysis of issues existing, and create more precise investigations on the topic. Besides, the analysis of the all Ukrainian Armed Forces capabilities to meet NATO standards can be conducted without timing, focusing only on results that were achieved and planned to be achieved.

For the Ukrainian Armed Forces personnel responsible for the Army units' preparation for future participation in the multinational exercises with the NATO members and partners as well as taking part in the NATO-led operations, it is strongly recommended to change their approach towards the outcomes. Before determining the timeline for the Army units' readiness to achieve NATO requirements, it's worth first of all, to conduct a deep analysis of units' capabilities, the resources existing (material and financial), and the real necessity to accelerate the integration processes. Better results are achieved in concentrating efforts towards actual achievements and finding ways of effectively developing present capabilities instead of the creation of the fictitious picture of combat readiness in tasks that are not achievable except for very limited periods of time.

Consequentially dissemination of efforts with the responsible military personnel is crucial for the Army units' combat readiness and abilities to act as a part of the NATO members' forces. So, it's critically important to accelerate the standardization process to fix the issue of doubled approach towards the Army units' preparation and mission accomplishment. The sooner the doctrinal base of the Ukrainian Army becomes the same or at least more similar to the NATO one, the faster the Ukrainian Army can concentrate

its efforts on the Army's development using the same standards as the forces acting in Eastern Ukraine conflict area and the units based in home station and preparing for the NATO-led mission.

In case of limited human and SME resources, the standardization process in the Ukrainian Army should be conducted first with accepting TTPs and development of Field Manuals interoperable with the NATO requirement for the tactical level Army units. It will provide the possibility to standardizes the unit's training and abolish the issue of different approach to the Army units' training when each commander has his own point of view on different procedures according to his own experience of Soviet or NATO schools.

The lack of SMEs can be filled by the increasing of cooperation with the NATO members in the area of training. So, the number of mobile training groups from the Alliance needs to be increased with the aim not just train as much as possible Ukrainian soldiers but focus the training towards instructors' preparation. It will support the principle – train the trainers, and accelerate the process of the Army units' training according to the NATO standards.

The same time the Ukrainian Army doesn't need to abolish the existed training system which has its Soviet origin, and accept the NATO system as it is. The analysis in Chapter 4 of the thesis shown the dependence of the equipment and other material from the existed logistical system in the Ukrainian Army that leads to different procedures for the Ukrainian troops to support own forces. Of course, it has influence to the unit's training as commander understands his dependence from the existed Ukrainian supply chain. So, the Ukrainian Army training has to include all elements required to accomplish

the task with the current supply but simultaneously act in the same direction with the NATO members or partners.

Slow changes in the Ukrainian Army acquisition system shows that the process of full material interoperability with NATO partners is not envisioned for the near future. That again supports the idea of the necessity to train leaders be able to organize unit's supply by only home country logistic assets. It confirms the statement that the Ukrainian Army's Doctrines cannot be identical with the NATO ones but they have to be interoperable at the highest level as possible.

Besides, Doctrine and Training of the Ukrainian Army have to be connected with NATO by creation of a common organization responsible for the Lessons Learned. The Soviet experience, as well as modern Ukrainian ones have to be considered for the future development of the NATO members' forces as well as improvement of the Ukrainian Army. It is especially critical today that Ukraine captures its great experience during the Ukrainian-Russian conflict but the Lessons Learned mechanism is not very well developed in the Ukrainian Army.

### Summary and Conclusions

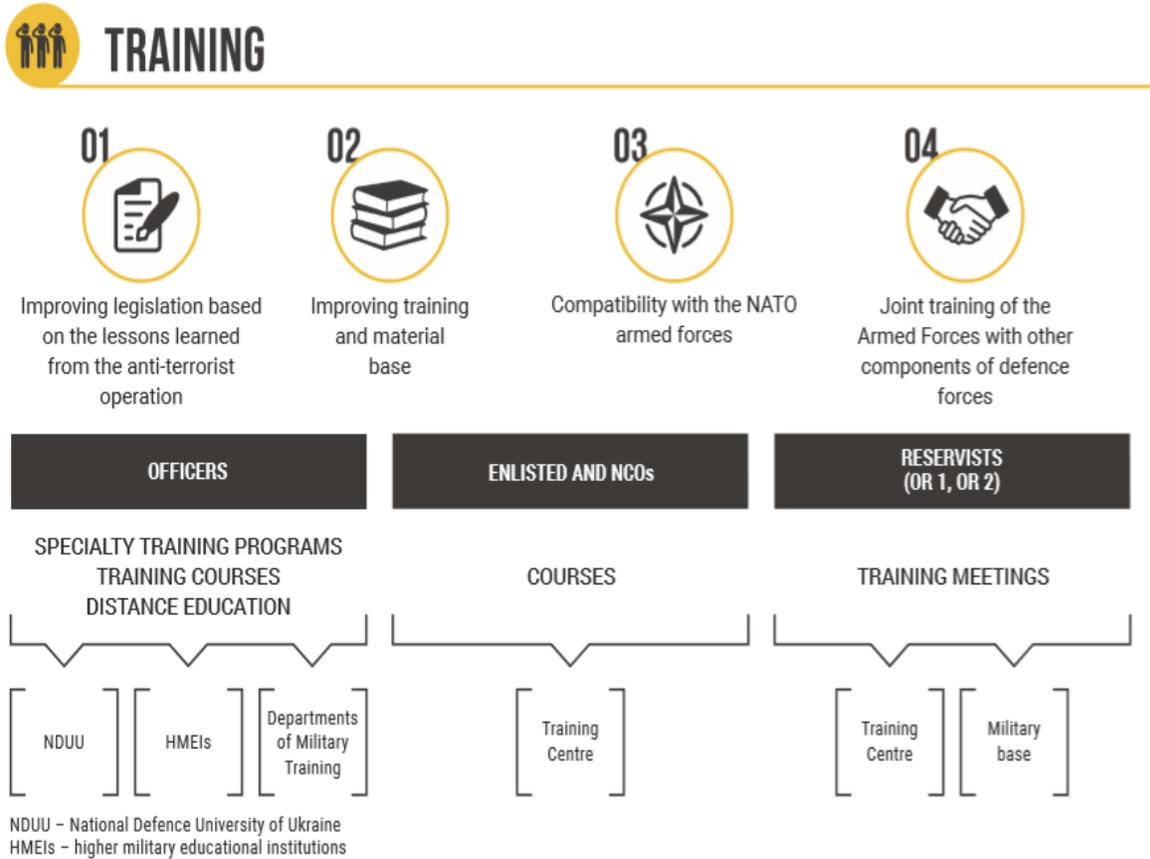
The final objective of Army reformation according to the military Doctrinal principle of the Euro-Atlantic integration of Ukraine, is to have the same standards for the Ukrainian Army as for the NATO members' forces.

Due to the numerous reasons mentioned above it is not achievable in the short term but the Ukrainian Army has all the capabilities to achieve this goal eventually using a systematic approach to the issues with the focus on the results not on the time required to achieve them.

The analysis of only three of eight elements of DOTMLPFI Force Management model has shown the significant progress of the Ukrainian Army to achieve required standards, but at the same time it answered the primary research question – What are the Ukrainian Army’s abilities to achieve interoperability with NATO by 2020 – as mainly unachievable. So, the conducted research reflects the very limited capability of the Ukrainian Army to achieve interoperability with NATO by 2020, but sometime in the near future. At the same time, the consolidated efforts of all state and military personnel responsible for the Army transformation provide the greatest opportunity and probability to achieve the goal.

## APPENDIX A

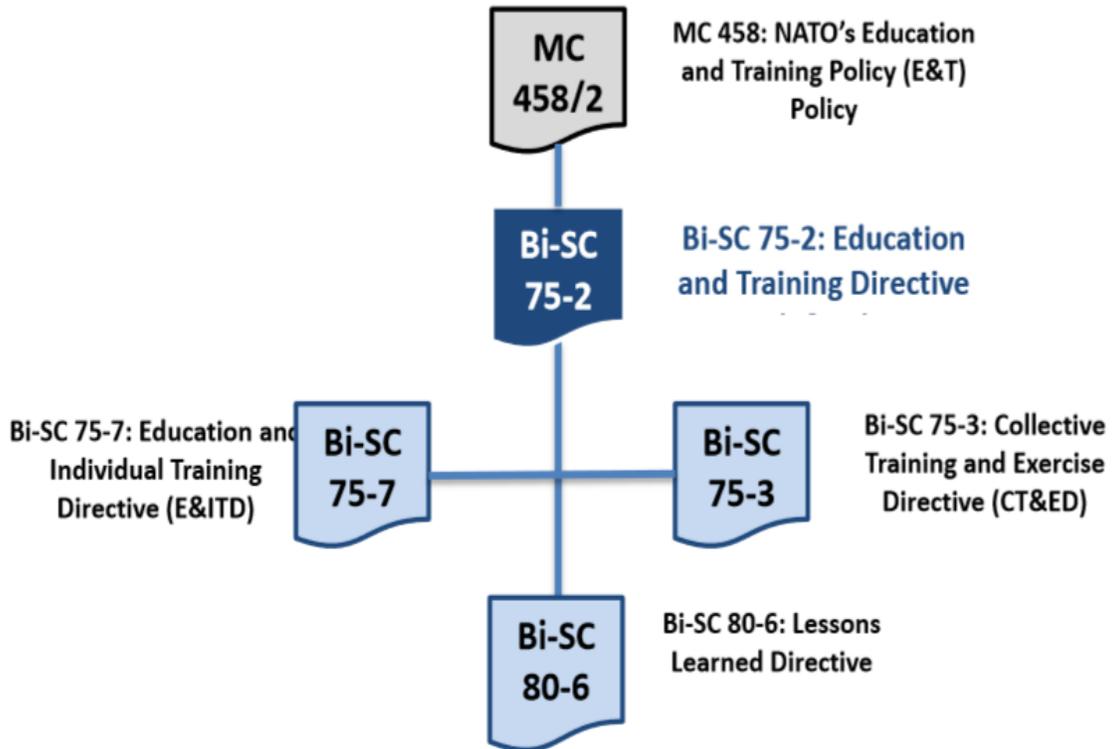
### TRAINING TASKS FOR THE UKRAINIAN ARMED FORCES TO 2020



Source: The Ministry of Defence of Ukraine, *The State Program for the Development of the Armed Forces of Ukraine until 2020* (Kyiv, Ukraine: Ministry of Defence, 31 July 2017), accessed 09 January 2019, [http://www.mil.gov.ua/content/oboron\\_plans/2017-07-31\\_National-program-2020\\_en.pdf](http://www.mil.gov.ua/content/oboron_plans/2017-07-31_National-program-2020_en.pdf).

APPENDIX B

HIERARCHY OF THE NATO EVALUATION AND TRAINING DIRECTIVES



*Source:* Supreme Allied Commander, Europe and Supreme Allied Commander, Transformation, Bi-Strategic Command Directive Number 75-2, *Education and Training Directive* (NATO, October 2013), Chapter 1, Figure 1-4.

## APPENDIX C

### WORKING DEFINITIONS OF THE LINES OF DEVELOPMENT

Doctrine	Fundamental principles that guide the employment of military forces in coordinated actions toward a common goal.
Organization	A unit or element with various functions enabled by a structure through which individuals cooperate systematically to accomplish a common goal and directly provide or support war-fighting capabilities.
Training	Military training based on doctrine or tactics, techniques and procedures to prepare forces and/or staffs to respond to strategic and operational requirements deemed necessary by the commanders to execute their assigned mission.
Material	All items necessary to equip, operate, maintain and support military activities without distinction as to its application for administrative or combat purposes.
Leadership	The ability to influence, motivate and enable others to contribute towards the success of the organization and inspire to change in order to improve effectiveness.
Personnel (and Education)	The human capital of a force serving as part of an organization tasked to accomplish a common goal.
Facilities	A building, place or infrastructure which provides a specific kind of operating assistance thereby facilitating any action or operation.
Interoperability	The ability to operate in synergy in the execution of an assigned task.

*Source:* NATO Command and Control Centre of Excellence, *Command and Control in a Network Enabled Environment*, February 2012, accessed 13 January 2019, [https://c2coe.org/wp-content/uploads/2012/02/C2-in-a\\_Network-Enabled-Environment.pdf](https://c2coe.org/wp-content/uploads/2012/02/C2-in-a_Network-Enabled-Environment.pdf), 18, Table 1.

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