Security Sector Reform in Ukraine: Quo Vadis?

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National Defence Academy of Ukraine (Kyiv, Ukraine)

DCAF (Geneva, Switzerland)

SECURITY SECTOR REFORM IN UKRAINE: QUO VADIS?

Geneva Centre for the Democratic Control of Armed Forces
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INTRODUCTION

The history of humanity testifies to the fact that the security sector plays a key role, among numerous other factors, in determining the capacity of a state to adapt to changes in the international arena, including its ability to adequately respond to threats and challenges to national security and maintain an effective level of national defence.

The dynamism in international relations has increased in recent years and is defined by a range of important factors including:

- Collapse of a bipolar world and the emergence of a multipolar model in its wake;

- Appearance in the international arena not only of separate states and their associations but also unconventional players such as, for example, international terrorist movements;

- Intensification of globalisation, on the one hand, and an increase in disintegrating tendencies even in relatively stable societies, on the other hand;

- Increase in the economic gap between countries;

- Intensification of opposition between traditional and "new" geopolitical centres of gravity;

- Financial crisis leading to the serious revision of intergovernmental economic relations.

The objective result of these developments in international relations has been the appearance of new threats and challenges to state interests both at global and regional levels. As the experts underline, this situation is especially difficult for post-totalitarian, post-soviet states, among which is Ukraine.

The provision of developed national security structures in such conditions is possible only in the case of the creation of effective mechanisms capable of rapidly adapting the security sector to the arising threats and challenges. The algorithm of such an adaptation is not new. It is extraordinarily simple in general description and extraordinarily difficult in practical realisation. The basic stages of this algorithm are well known:

1. Analysis of the foreign and national policy situation. Identification of threats and challenges to the national security, and trends associated with their development.

2. Estimation of the current status of the security sector. Identification of weak points with regards to the prospect of a given situation.

3. Development of a joint strategy of security sector development aimed at the liquidation of the weak points identified during stage two.

4. Implementation of the developed strategy.

Surely, this algorithm is a simplification which only illustrates the logical application of security sector reform processes. Indeed, the actual reform process has the following features:

- Unified stages over time
- Cyclical
- Continuous.

The presence of these features in the reform process as well as their scale and role make this process extraordinarily difficult for the purposes of research. Each of these stages is decisive for the achievement of the ultimate goal – the development of effective national security and defence systems which are adequate to respond to present day challenges.

Taking into account the complications and complexities associated with the 'national security' concept, it becomes clear that the realisation of adaptive security sector management is a task that requires coordinated efforts from a number of experts for all aspects of state security and defence. These tasks cannot be achieved without the realisation of large-scale scientific research in the implementation of all stages of the abovementioned algorithm – both at the level of separate security sector components and at the overall systemic level. However, we believe that the given problem should be considered in terms of society's democratisation in addition to the national security dimension. The levels of transparency, public oversight of processes in state security and defence are largely indicative of a state's level of democracy and determine the degree of regional and international partners' trust in the state.

The following collection of analytical material has two aims:

- To develop a certain profile of the current status and future plans in reform of some key security sector components;
- To inform both the experts working in the area of security sector reform and the public at large.

It is no coincidence that this publication by the National Academy of Defence of Ukraine is supported by the Geneva Centre for the Democratic Control of Armed Forces (DCAF). The Armed Forces of Ukraine play a critical role in developing national security and defence systems and this requires significant efforts from the Academy in encouraging scientific support of security sector development. Interdepartmental conferences and seminars are addressing the challenges associated with national security in support of Ukraine's security sector reform efforts. The Academy is greatly sup-

ported in its activity by the DCAF. Our long standing partnership with our Swiss colleagues has facilitated the implementation of a series of joint information projects in this field. They include publications of the theoretical and practical magazine "Modern information technologies in security and defence" and the Internet-portal "Library of democracy."

We hope that this collection is truly interesting and useful to experts who contribute to Ukraine's security sector reform efforts and that it focuses public attention on existing problems.

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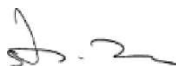General of the Army of Ukraine

PREFACE

I would like to congratulate the editor and contributors who worked on this timely and well-composed publication.

It is necessary to critically examine what has been done at the beginning of a reform process and at stated intervals to determine whether a process is successful, and whether it is moving in the right direction.

This publication will serve this purpose as best as possible. The Geneva Centre for the Democratic Control of Armed Forces—in the framework of its cooperation with Ukraine's defence and security authorities and civil society—has been cooperating with the Defence Academy of Ukraine for several years. A range of important projects have been implemented, including:

- An electronic library of documentation related to leading practices in security sector reform in Ukrainian, Russian and English languages; (www.demlib.net);
- ADL courses (Advanced Distributed Learning) on security sector reform at international and local levels (see www.demlib.net);
- An international academic magazine which covers issues of Internet application in security sector reform and management ("Modern information technologies in security and defence").

The Geneva Centre for the Democratic Control of Armed Forces considers this cooperation to be very successful, and I would like to recommend this publication to interested readers. It clearly proves that democratic management of the defence sector is evolving and it will attain success in the future if there is political will.

Philipp Fluri, PhD

Deputy Director of Geneva Centre for the
Democratic Control of Armed Forces

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Section 1

Reform in the Armed Forces of Ukraine: Bonum et Malum [1]

Reform of the Armed Forces of Ukraine: Quieta non Movere [2]

Oleksandr Zaruba

Since the independence of Ukraine in 1991, its armed forces, like the armed forces in virtually all European countries, stared a difficult process of reform. Its necessity was predefined by a disparity between the quantitative and qualitative composition of troops located on the territory of Ukraine, and the tasks required to create an army for the newly independent state.

Western experts have identified three stages in the reform of Europe's armed forces:[3]

1. *Downsizing of armies (1990-95).* This reduction was explained by the economy of finances (resources) in the period of a decreased likelihood of the outbreak of a large-scale war following the collapse of the Soviet Union. The duration of military service decreased, barracks were deserted, and heavy armaments designed to conduct combat on land were sold.

2. *Internationalisation and professionalisation (1996-2001).* This stage was characterised by tendencies to align with NATO as a guarantor of security and to introduce NATO standards in the practice of the establishment of the armed forces, combat training, military equipment and armaments. Changes were provoked by armed conflict in the former Republic of Yugoslavia and the Kuwait crises. This

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[1] Good and evil (lat.).
[2] Do not disturb public tranquility (lat.).
[3] Karl W. Haltiner and Paul Klein, "The European Post-Cold War Military Reforms and Their Impact on Civil-Military Relations," in *The European Armed Forces in Transition: A Comparative Analysis*, ed. Franz Kernic, Paul Klein, and Karl W. Haltiner (Frankfurt am Main: Peter Lang, 2005).

stage differed in terms of the conceptual and strategic transformation of troops across the spectrum of tasks, training requirements and manning methods.

International strategic projects and regional and world security systems gained greater value within the national security space during this period. The umbrella of general security spread out practically to the whole continent due to the "Partnership for Peace" program which was realised through the "security through participation" approach.

Many countries shifted to contract manning and professionalised their armies while downsizing.

3. *The third stage of reforms (from 2001 until now)* is aimed at the introduction of the module principle in organisational structures and comprehensive professionalisation. The US introduced "revolution in military craft" which resulted in the "Network Centric Warfare" doctrine. NATO reformed its own command and control system, and one of the strategic commands was transformed into Allied Command Transformation (ACT). Although the Iraqi crisis of 2003 activated the 'human factor' in combat actions, it did not deny and even confirmed the role of modern technologies in combat.

The content of these stages in defence reform in the European states was also inherent to the Armed Forces of Ukraine. In fact, Ukrainian higher political and military leadership similarly accepted a course on the professionalisation of the army and a gradual shift to Western standards in security sector development and reform.

The Ukrainian military historiography of *UAF reform and development stages* coincides with its European counterpart and distinguishes four stages.

The *first stage* (1991-96) was characterised by the establishment of the Armed Forces, the creation of a regulatory and legal framework for their activity, reorganisation of structure, creation of a command and control system, and reductions in personnel, armaments and military equipment. Since 1992, UAF units began to participate in peacekeeping operations, and NATO-Ukraine cooperation started when the "Partnership for Peace" program was signed in 1994.

Fundamental legal documents which establish the structure of Ukraine's security and defence sector were adopted during this stage: The Concept of Defence and Establishment of Ukraine's Armed Forces approved by the Parliamentary Decree of 11 October 1991; Laws of Ukraine "On the National Guard of Ukraine" (November 1991), "On the Border Guard of Ukraine" (November 1991), "On the Defence of Ukraine" (December 1991), "On the Armed Forces of Ukraine" (December 1991), "On the Alternative (non-military) service" (December 1991), "On the Security Service of Ukraine" (March 1992), "On the General Military Duty and Military Service" (March 1992), "On the Interior Troops of the Ministry of Interior of Ukraine" (March 1992), "On the Civil Defence of Ukraine" (February 1993), etc.

The second stage of the reform in Ukraine was marked by a presidential decree in January 1997 that ratified the state program, leading to the establishment and development of Ukraine's Armed Forces until the end of the third phase in 2005.

The *second stage* (1997-2000) is characterised by the arrangement of defence planning processes, the introduction of a system of reform of military formations and development processes.

An outstanding feature of this stage was the improvement of legislation to achieve detailed regulation of all aspects of activity in the security and defence sector. From 1997-2000, 25 laws were adopted related to defence organisation, mobilisation and mobilisation preparation, the legal status of a war situation and a state of emergency, admittance and conditions of stay for foreign military units on the territory of Ukraine, as well as procedures for the deployment of Armed Forces units to other states, procedures for state defence ordering, the legal status of property and economic activity in the Armed Forces.

Taking into account the political changes at the end of the 20th century in Ukraine and in the world in general, the President of Ukraine—Commander-in-Chief of the Armed Forces—introduced amendments into the State program of the development of Ukraine's Armed Forces. Presidential Decree #927 dated 28 July 2000 approved the second State program of reform and development of the Armed Forces for the period to 2005 which came into force on 1 January 2001 and launched the third phase of development.

The *third stage* (2001-04) commenced with the introduction of NATO standards and procedures in the everyday activity of command bodies and military formations. In 2004, a Defensive Review was conducted, the military-political situation was analysed and a vision of the Armed Forces for 2015 was defined.

The *fourth phase* (from 2005 – present) focuses on the Ukraine Armed Force's professionalisation, bringing reform plans into line with budgetary indexes and defence expenditure, administering substantial changes in defence planning and accelerating reforms so as to achieve compliance with criteria for integration into NATO.

The reform process was divided into distinct stages, each with its own notable features. Despite the many achievements, there were important shortcomings too. They included:

1. The absence of a clear vision from the senior political and military management of Ukraine concerning the future of the Armed Forces.

2. The unsystematic progress in downsizing the Armed Forces and military formations resulting from the previous factor.

3. The loss of control over considerable material resources belonging to the Armed Forces (weapon systems, ammunition, cantonments, etc.). These were withdrawn from the Armed Forces' subordination, sold or handed over to business corporations and local executive bodies without necessary indemnifications or guarantees of social protection for military servicemen.

4. The loss of a considerable number of positions in relation to social protection for servicemen and family members.

5. The loss of prestige and the incapability to convey a positive image of the Armed Forces to Ukraine's mass media.

6. The frequent use of servicemen in electoral races only as an object of political intrigue and the absence of the involvement of the Armed Forces as an instrument of state policy.

The author of this publication does not try to review the entire reform process. Such research would constitute several hundred pages in a single volume. The purpose of the article is to analyse the terminology which is used to describe changes in the Armed Forces of Ukraine, contemporary views on reform, the transformation of the Armed Forces and the results that are being achieved. The author analyses official plans and programs specified in successive Defence White Papers, statements made by senior military officials and, especially, the *Implementation Program of the NATO-Ukraine Military Committee Work Plan for 2009-10.* The author believes that the implementation program in particular represents activities related to the reform process and, thus, the analysis of their implementation provides a clear picture of the current status of the reform efforts. The author understands that the Implementation Program does not cover the full spectrum of reforms; however, it reflects the most considerable tendencies and results of the reform process.

Before examining specific measures and their performance, let us consider the terminology used to describe the reform measures in official discourse.

The most characteristic terms used in official discourse include: *development*, *reform*, *transformation and professionalisation*.

A representative term which describes the process of the Armed Forces' development is *establishment*. It relates to reformation as opposed to the beginning of development.

In 2000, when the State program to establish and develop the Armed Forces of Ukraine was adopted, the focus was more on *reform* as opposed to the establishment of a *professional* army. Theses on this subject are expounded in the preamble to the White Paper of 2005 and addressed by the President of Ukraine V. Yushchenko and the Defence Minister A. Hritsenko.

However, the term '*reform*' was used to describe those measures which had already been implemented. Accordingly, the *State Program of Development of the Armed Forces* addressed unresolved problems of *reform* for the period of 2006-11 (Table 1).

Table 1: Basic Problems Related to the Reform of Ukraine's Armed Forces and Directions for Their Resolution as Provided in the State Program of the Armed Forces' Development for 2006-2011.

Problems	Directions from 2006-2011
Command and Control	
The number of chains in operational management is excessive: the General Staff – the Armed Service – Operational Command – Army Corps (Air Force Command) – military unit. The high number of chains reduces their operational ability.	Starting from 2006: To introduce a three-level system of operational management: the General Staff – Joint Operational Command – Inter-service formation, Army Corps, Air Force Command;
The system is designed to manage operational-strategic formations of troops (forces) in large-scale wars.	To cancel such functions of operational commands as operational planning, support of combat and mobilisation readiness of troops;
There is no structure for management of inter-service formations of troops (forces).	To hand over management of army corps to a direct subordination to the Land Forces Command.
The creation of a Command and Control system for logistic support of troops (forces) is incomplete.	Starting from 2006: To create Support Forces Formation on the basis of Support Forces Command.
The level and scope of automation and informatisation of C2 bodies is low (share of digital communication does not exceed 15%).	To complete the creation of Joint Automated Control System (JACS) in the Armed Forces: • 2006-09 – development and introduction of information technologies in the decision-making process, firstly, in the C2 bodies of Joint Rapid Reaction Forces; • The intra-system integration and compliance of JACS specifications with NATO standards; creation of C2 Joint telecommunications environment capable of integration in the national information space.
Organisation and numeric strength	
Existent sharing under functional assignment for the Joint Rapid Reaction Force, main Defence Forces and Strategic Reserves does not meet specified scenarios of potential conflicts and new tasks of the Armed Forces.	Starting from 2006: To create structures within the Joint Rapid Reaction Forces and main Defence Forces which differ in terms of readiness and methods of manning and equipping according to assigned tasks.

The number of personnel (245,000 persons) exceeds the actual requirements of the Armed Forces.	To downsize (at a slower rate) the Armed Forces: in 2006 – to 221,000 persons; in 2011 – to 143,000 persons.
The correlation ratio of combat units and combat support units is 1:1.5 This considerably exceeds the need in the support structures for operational-tactical and tactical troops (forces).	Until the end of 2006: To bring correlation of combat units and combat support units to a 1.2:1 ratio.

Logistics support, equipment with armaments and materiel

The system of logistic support is structurally excessive and functionally insufficient.	To transfer the acquisition of resources and provision of services for the Armed Forces on a commercial basis; until 2008: To transit logistics support to the territorial principle, to centralise control, increase and specialise support bodies.
80% of armaments and military equipment are exploited over 15 years; an overwhelming proportion of weapons and armaments are out-of-date.	Starting from 2006: To decline large-scale armaments projects and military equipment development, and to focus efforts and resources on the technical modernisation of the Armed Forces.
The accumulation of large volumes of surplus armaments and ammunition has the potential to contribute to man-made disasters.	To launch large-scale long-term projects for the disposal of surplus armaments, ammunition, mines and rocket fuel; to involve considerable foreign financial and technical assistance.

Military infrastructure

The Defence Ministry possesses over 2,000 cantonments in which approx. 44,000 buildings and premises are located, as well as 455 hectares of land – which exceeds the needs of the Armed Forces by 30-40%.	To improve legal principles for the hand-over and sale of cantonments and property; To increase the income from their sale to the State Budget.

Troops (forces) training

The training system does not meet modern requirements, nor does it provide sufficient maintenance required for force readiness necessary to conduct combat training plans for the Joint Rapid Reaction Forces. (These were fulfilled to 75% from the average annual plans. The combat training in the Main Defence Forces is undertaken only by	To support the implementation of combat training plans for Joint Rapid Reaction Forces; To conduct full-scale training of troops (forces); To improve the forms and methods of training; To support training processes using modern

commander training with officers and joint training with non-commission officers and soldiers).	simulation complexes.
Personnel and military education	
The correlation of the number of junior and senior officer positions is 1:1.03 in comparison with the required 1.5:1.	To increase the correlation of junior and senior officer positions from 1.06:1 in 2006 to 1.52:1 in 2011.
The number of military educational establishments (over 60) considerably exceeds the requirements; the number of personnel is 11% of the general numeric strength of the Armed Forces.	Till the end of 2011: To reduce the number of military educational establishments to 12 with the number of personnel close to 7% of the general numeric strength of the Armed Forces.
Rates of introduction of contract manning are low.	To accelerate the transition of the Armed Forces to contract manning, and complete this process in 2010 (instead of the earlier planned date of 2015).
The preparation of human resource mobilisation is burdensome for the state, difficult for society and does not meet modern requirements for the quantitative and qualitative parameters of mobilisation resources.	In 2006: To adopt the necessary regulatory and legal framework and further introduce voluntary service for the reserves.

The term '*transformation*' has been widely used in NATO's official records in recent years. Initially, it was also used in Ukraine in an analogical way.

The former Defence Minister Yu. Ekhanurov stated:

Transformation is a long-term investment. However, this activity has a future. The experience of previous defence reform efforts testifies that the success of the Armed Forces' development directly depends on the completeness and timeliness of financing for their needs. Public opinion, the Verkhovna Rada and the government can be convinced of providing comprehensive support of the Armed Forces' transformation only using true, clear, comprehensive and realistic information.

The achievement of transformation priorities will allow bringing basic indexes and rates of the Armed Forces' development into line with modern requirements, and creating forces with optimal numeric strength, mobility, modern armaments, comprehensive support and training, capable of reacting to new threats in a timely and effective manner, and it will also give new impetus to the development of Ukraine's defence policy, and synchronise defence and security reform processes.

It will allow for the improvement of the defence strategy in Ukraine, and the introduc-

tion of the most effective forms and methods of defence reform so as to achieve the required operational capabilities for the Armed Forces of Ukraine.[4]

Professionalisation of the Armed Forces of Ukraine is seen as a complicated process of army reform objectively predefined by both external and internal factors and aimed at the creation of a small, trained, well-equipped army.[5]

Tasks to create a professional army in Ukraine are complicated firstly by the need to simultaneously implement interrelated and balanced measures of structural transformation, shift to contract manning, improve the training of personnel and troops (forces), and renew the pool of armaments and military equipment (AME).

Most authors agree on the main factors for a successful development of professional Armed Forces in the Ukraine: the presence of a political will, competent and responsible management at all levels; permanent scientific and analytical support for the draft and implementation of professionalization plans; the timely adjustment of programs and their financial support.

In general, the terms used to describe changes in the Armed Forces of Ukraine allow for certain commonalities. However, the application of this set of terms has several goals:

1. To designate a qualitative difference in the processes of development of the Armed Forces.

2. To responsibly manage changes in the Armed Forces for the benefit of the public.

3. To comply with NATO's official discourse.

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[4]   Extract from an interview with former Defence Minister Yu.Yekhanurov.

[5]   Meanings of the terms 'profession,' 'professionalism,' 'professional' which can be found in both Ukrainian and foreign language dictionaries contain two basic features: *firstly*, attitude to work as a permanent occupation and means to gain incomes; *secondly*, as a level of qualification and quality of work performance which distinguishes an expert from an amateur.

When we speak about any professional organisation including the army, it means, first of all, that the personnel which work for the organisation receive a corresponding salary and reliably perform their duties and responsibilities.

At the same time, the term 'professional army' is quite often used as a synonym of contract manning – although it is understood that even absolute replacement of conscripts with contract servicemen does not guarantee professionalism of personnel in the context of qualification levels. *Military professionals can be called well-trained, well-equipped (armed), organised experts in military terms with certain peculiarities of professional motivation, system of values, corporate culture inherent for this specific type of activity.*

The Law of Ukraine "On the military obligation and military service" defines military service as: "a specialised public service which lays in the *professional activity*, health and age suitable citizens of Ukraine related to defence of the Motherland" (Article 2).

From the report provided by Razumkov Center, "International Experience of Building Professional Armed Forces: Factors and Trends," in *Professionalisation of the Armed Forces of Ukraine: Quo Vadis?* (Razumkov Centre Analytical report), *National Security and Defence* 5(99) (2008), p. 3.

One of the most informative documents on the Armed Forces' transformation is the *Implementation Program of NATO-Ukraine Military Committee Work Plan* which is a working document used to implement measures provided in the *NATO-Ukraine Target Plan for 2009*.

It supports the implementation of the following tasks:

- To improve the command and control system of the Armed forces of Ukraine;
- To develop an effective system of support and supply;
- To increase the operational capacity of Joint Rapid Reaction Forces (JRRF) units;
- To achieve interoperability of UAF units with Allied units;
- To improve the Armed Forces' capabilities to participate in anti-terrorist operations;
- To improve the mechanism of NATO-Ukraine cooperation in Chemical, Biological, Radiological and Nuclear (CBRN) defence;
- To enlarge the Armed Forces' participation in international and regional security assistance operations, including NATO-led operations;
- To increase the Armed Forces' operational capabilities through their transformation;
- To improve defence cooperation mechanisms.

In order to *improve C2 systems* it is advised firstly to: improve the functional capabilities of UAF General Staff (GS) structural units on the basis of the NATO headquarters structure (J-structure), develop Joint Operational Command (JOC) capabilities in the management of current operations, develop initial operational capabilities of Special Operations Force Command and Special Operations Forces, introduce measures to integrate UAF Air Traffic Control System in the joint European system and continue to implement a policy of cooperation between Ukraine and NATO members in the framework of the Air Situation Data Exchange Program (ASDE); and finally develop an acquisition plan and use of unmanned aerial vehicles (UAV).

Those measures specified in this section which have already been implemented facilitated the considerable improvement of the UAF GS and JOC officers in operational planning and the application of NATO standards. This was achieved through the conduct of a UAF staff officers expert training course with the participation of experts from the Center for Civil-Military Relations of the Naval Postgraduate School. The course was held from 25 January till 20 February 2009. It determined priority interoperability needs for UAF staff officers expert training seminars conducted by the Center for Civil-Military Relations Naval Postgraduate School from 21-25 April and 1-5 June 2009.

The implementation of these measures face a range of difficulties related mostly to the linguistic and cultural differences between the English-language environment of NATO documents and the need to introduce them into defence planning processes and operational documents of commands at different levels.

The operational planning process under NATO standards which was already transformed in the range of operational documents of the Armed Forces of Ukraine is surprising. After describing the stages of staff work within NATO terms, the developers of these documents did not take into account, or specify, the process of operations planning development, nor could they interpret the general approaches for the development of such documents, to the functions and duties of commander and other staff officers in the planning process.

As a result, attempts to elaborate staff work principles in line with this planning process (which was completed during a number of exercises, including JOC exercises) faced considerable difficulties and, in some cases, it was even decided to shift to the process of staff work based on the former Soviet methodology.

The establishment of JOC has been subject to serious criticism with regards to the sharing of command and control of the military formations in peacetime and during operations (operational control) in NATO countries. Headquarters and commands like JOC perform tasks of command and control of military formations during operations (peacekeeping, stabilisation, command and control of contingents outside the country, etc.). This system is old and well-tested. However, the idea of such sharing is realised only at JOC level and it is not fully realised in Ukraine as a whole. The comprehensive support of military units in operations, rotation of personnel and other aspects remain the tasks of units which form contingents.

A small enough participation of Ukraine's peacekeeping contingents in peacekeeping operations will eventually force the question of whether there is need in JOC with such numeric strength to command and control these contingents?

With regards to plans to purchase UAVs, the Defence Ministry is even today forced to answer requests in relation to the purchase of pre-production models of Israeli UAVs with the availability of unmanned aerial carriers with reconnaissance equipment designed by national enterprises. It testifies to, at least, the imperfect procedure of tenders for the acquisition of weapons and equipment.

An *effective support and supply system* in the Armed Forces of Ukraine will accompany the introduction of a new logistic support system. For this purpose, it is necessary to define its rational architecture and to train personnel to work with the system as well as provide interoperability with logistic support of NATO forces for those Ukrainian Armed Services' units which participate in peacekeeping operations and other operations and exercises jointly with other NATO countries.

The analysis of the program implementation provided in this section shows that a number of planned measures were postponed or not implemented at all. Due to financial constraints, Ukrainian naval representatives failed to participate in a NATO logistics course (Oberammergau, Germany), a conference on logistics (Madrid, Spain) and a Seaport services conference (NAMSA). Similarly, a mobile refueling complex intended for the delivery of fuel to frontline units of the Land and Air Forces to support their participation in NATO-led Partnership for Peace (PfP) operation could not be bought due to financial problems.

The participation of Ukrainian servicemen in only a few representative activities and especially the theoretical development of a future logistics support model does not allow for a shift to the area of practical actions where there is an urgent need to radically change logistics. Today, logistics is too burdensome for the Armed Forces in relation to the number of intermediate chains of supply, involving personnel, equipment and infrastructure that radically differ from NATO countries.[6]

It seems it is high time to make first conclusions on the introduction of outsourcing for the provision of catering. In fact, together with the unexceptionable advantages of this process, the increase of catering quality and diminishing of disengagement from combat training there are shortcomings which should be discussed. They relate both to the need to permanently monitor the quality of military units and the problem of catering during peace-keeping operations and combat actions. However, no consultations with NATO colleagues on outsourcing were held.

The *increase of operational capabilities of Joint Rapid Reaction Forces (JRRF) units* during all periods of their existence was always considered a priority. Greater attention was paid to this issue in the framework of the Implementation Program.

It should be noted that all Land Forces units declared for participation in PARP have C2 bodies (commands) established under NATO standards (typical section structure). The shift to this structure of units from Air Force and Naval Coast Guard is under consideration and involves active discussion with foreign advisers.

The improvement of functional capabilities of the JRRF command structure (J-structure) was discussed from 8-14 February 2009 during the visit of US Air Force officers from the Californian National Guard to the Ukrainian Air Force Command and A1356 military unit (Myrhorod).

One of the general requirements to JRRF units is their technical compatibility with communication systems of similar NATO units. The installation of foreign-produced communication sets on the command vehicles (CV) is under way to meet these requirements and tactical level communication sets for JRRF are delivered in the framework of international contracts.

One activity that has successfully worked over a long period of time is the simulation facilities in combat training of UAF military units. In 2004, the National Defence Academy of Ukraine (UNDA) began to accommodate a Simulation Centre – one of the largest in Europe. The exercises were held at the international level with the involvement of servicemen from NATO and PfP countries, and commands from UAF units as well as students from the Academy.

The use of simulation facilities together with other real situation display tools allows for a considerable reduction in expenses for combat training.

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[6] The author of the article visited a central depot which provides almost the entire range of necessary supplies and services (from armaments to socks) for 60 % of the Canadian armed forces. Thanks to high logistic technologies, robotisation and computerisation, supplies are delivered directly to military units, and the number of involved personnel does not exceed 200 officers.

The mobile component of the centre was developed according to provisions of the present programs of project development. Experienced instructors with the use of notebooks and JCATS software already held a series of exercises directly in JRRF units.

It is very important for JRRF servicemen to understand their colleagues from other countries; this is why a lot of attention is paid to language training and language courses in JRRF both in Ukraine and abroad.

On the whole, it can be stated that intensive reform processes aimed at the achievement of new results in the professionalism of military servicemen and units, and their interoperability with NATO military units, are generally assured in JRRF.

The *achievement of interoperability between UAF units and Allied military units* is considered as a separate item of the implementation program. Firstly, it was planned within the framework of this unit to hold a series of international exercises where UAF units should participate. Such exercises are needed to actually verify the level of interoperability with military units from other countries and support formal self-assessment of interoperability commencing with the second level in the framework of the Operational Capabilities Concept.[7]

Some UAF officers and units participated in several planned exercises. UAF GS officers participated in "Cold Response – 2009," a multinational land forces exercise from 18 May – 3 June 2009 (Harstad, Norway); servicemen from UAF Land Forces 8th army corps participated in the "Cooperative Lancer – 2009" exercise from 18 May – 3 June 2009 (Georgia), and five servicemen participated in the "Cooperative Longbow – 2009" exercise from 6–21 May 2009 (Georgia).

However, it is also important to note that a number of exercises were cancelled this year due to financial constraints. Participation in "Steadfast Joist – 2009" a NATO/PfP staff exercise was cancelled. Joint Ukrainian-Belgian company-level engineering units exercises, Ukrainian-Slovakia tactical mechanised units exercises (company level), Ukrainian-Hungarian-Slovakian-Romanian "Light Avalanche" staff exercises for "Tisa" multinational engineering battalion, Ukrainian-Polish-Lithuanian-Canadian "Maple Arch – 2009" tactical exercises, and the Ukrainian-Romanian tactical mechanised units exercises were postponed until 2010 due to limited financing. The participation of UAF Land Forces servicemen in the "Immediate Response – 2009" multinational staff exercises, Ukrainian-Polish "Concord" tactical exercises, "Loyal Ledge – 2009" exercises were also cancelled due to

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[7] Ukraine introduced the Operational Capability Concept (OCC) in 2001. NATO OCC is an instrument for the assessment of interoperability with units from NATO partner and member states. Achievement of OCC procedures by designated UAF units is aimed at the achievement of the full readiness to actions within NATO multinational forces during Crisis Response Operations.

   OCC Evaluation & Feedback Program is a computer-aided assessment methodology of unit readiness. Assessment is at two levels: the first level – interoperability (on the basis of military interoperability objectives), the second level – combat readiness (on the basis of NATO forces assessment methodologies). Firstly, assessment is conducted at every level (by national experts), and then NATO assessment is conducted (by NATO HQ representatives).

limited financing. UAF special units had the same financial problems related to participation in international exercises.

The same situation affected Ukrainian Navy and Air Force exercises. Participation in "Cooperative Marlin – 2009", "Cooperative Mako – 2009", "Black Sea Partnership – 2009," "Bold Mercy – 2009," "Sea Breeze – 2009" for the Ukrainian Navy were cancelled due to financial constraints. The participation of naval officers in the BLACKSEAFOR[8] activity program was also limited, although Ukrainian C2 ship "Slavutich" was deployed to activation of the formation in April.

The participation of Air Force units in "Cooperative Archer – 2009", "Bold Avenger – 2009," and "Combined Effort – 2009" exercises were cancelled for the same reason. The lack of technical readiness of Ukrainian aircraft to hold such exercises was also a contributing factor. Against this background, there was only a relative success in the participation of IL-76MD aircraft in the Joint Ukrainian-Danish "Cossacks on crisis – 2009" exercises (operations) where a sufficient volume of cargo was delivered to Greenland by Ukrainian aircraft.

Plans to build European and Eastern quarters were delayed due to lack of funds despite ambitious projects to develop the Yavoriv PfP Training Centre facilities. This has resulted in a decrease of the centre's strategic capacity and an inability to transform it into an international peacekeeping and security centre.

Similarly, a series of assessments (self-evaluations) in the framework of Operational Capabilities Concept for UAF Land Forces units and Ukrainian naval ships were postponed due to limited financing.

An increase in capabilities for participation in counter-terrorist operations is another important development in the reform process. Considerable efforts have been made to reform the UAF's Military Law Enforcement Service and improve their capabilities in countering terrorism. The following measures have been taken on a regular basis: training of personnel from Military Police units for potential deployment within the multinational NATO MP battalion, preparation for peacekeeping and anti-terrorist operations, training of special purpose units applying NATO standards, training of servicemen from UAF Military Law Enforcement Service in anti-terrorist operations courses (including those conducted at the

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8 The "BLACKSEAFOR" Black Sea Naval Cooperation Group was created in April 2001 to enhance good relations and trust between the states of the Black Sea basin, and to support peace and stability through the increase of cooperation and interaction between naval forces. Various fleets of Black Sea states are involved in cooperation (Bulgaria, Georgia, Russian Federation, Romania, Turkey, and Ukraine).

The multinational naval formation has the following tasks: search-and-rescue, humanitarian and countermine operations, environmental protection operations, and goodwill visits.

Regarding received requests, BLACKSEAFOR can also be involved in UN and OSCE operations once the participants reach mutual consent.

The BLACKSEAFOR Commander is appointed for a one-year term, and he is rotated on annual basis (in alphabetic order). International headquarters are subordinated to the BLACKSEAFOR Commander.

Anti-Terrorist Centre in Ankara, Turkey and at the NATO School in Oberammergau, Germany), and familiarisation in allied anti-terrorist and special purpose units.

The UAF Military Law Enforcement Service is currently implementing the next wave of reforms. According to new criminal justice reform efforts, the Military Law Enforcement Service should be transformed into the Military Police in order to prevent, expose and detect crimes, and perform the pre-trial investigation of cases related to crimes against the established order of the military service.[9]

Since the international experience of similar structures in other countries was not taken into account while establishing the UAF Military Law Enforcement Service in 2002, there is a great urgency for reforms. The Service simply replaced the whole army of garrison patrols and security units to guard convicted servicemen. As a result, from the viewpoint of other servicemen, the Service resembles a repressive body for the punishment of shallow violators of discipline in a garrison, as opposed to an effective body for the prevention of offences or pre-trial investigation. In fact, officers appointed to these units continue to act as investigators for pre-trial investigation in parallel with the implementation of official duties ex officio.

NATO forces were recently confronted with a situation whereby their military units should have had specific operational combat capabilities for strategic air transportation, CBRN reconnaissance and defence, etc. Part of the problem related to the fact that CBRN reconnaissance and defence capabilities were addressed through the integration of countries from the former Soviet block into NATO, especially the Czech Republic. However, Ukraine actively cooperates with NATO in this area. *Improvement of the mechanism of NATO-Ukraine cooperation in NBC defence* should be achieved through the regular participation of UAF servicemen in the NATO Senior Defence Group on Proliferation (DGP), training of CBRN experts from the Armed Forces of Ukraine at NATO institutions and exchanges of experiences with NATO members in the reform of C2 structures of NBC defence units.

The establishment of the NBC Defence Centre on the basis of the Military Institute in Kharkiv is under consideration. The establishment of an international centre to train experts in this area and the potential deployment of UAF servicemen to the Perfection Centre in Czech Republic, which specialises in countering WMD proliferation, are also being considered.

The UAF leadership pays considerable attention to peacekeeping activities. The Armed Forces of Ukraine have considerable experience in both the preparation and conduct of peacekeeping operations through its participation in peacekeeping activities since 1992. The implementation program presents an ambitious task to *increase the participation of the Ukrainian Armed Forces in operations of regional and international security assistance, including those led by the Alliance.*

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9   M. Khoroshilov, "Guarantor of Law and Order," *Atlantic Panorama* 5:18 (Kyev: Zovnishtorgvidat Ukraine, 2008): 42–44.

The activities planned include the support of UAF personnel in NATO-led Kosovo Force (KFOR), participation in "Operation Active Endeavour" (OAE), support International Security Assistance Forces in Afghanistan (ISAF), participation in the NATO Training Mission in Iraq (NTM-I) and engage UAF in the NATO Response Force (NRF).

The measures described in this section of the program have been implemented with significant success. Units of the Ukrainian contingent within the Ukrainian-Polish Peace Force Battalion (UKRPOLBAT) are being trained and prepared for rotations under prescribed procedures and plans. Foreign defence experts provide assistance in combat training. A seminar entitled "Development of Mission Essential Task List (METL) for a unit to be rotated within UKRPLOBAT in April 2009" was held with the participation of representatives from the Civil Military Relations Centre of the US Naval Postgraduate School from 6-10 April 2009. Another seminar was held to determine a METL for a national contingent (UKRPOLBAT) in Kosovo, Republic of Serbia, as a second rotation in 2009.

As for the UKRPOLBAT activity – it is the first time in the Armed Forces when experience is based on the results of the implementation of tasks for every rotation (or on the results of a half duty tour) and these results are considered during the training of servicemen for the next rotation. Reporting on task performance in AOE of UKRPOLBAT national contingent was received during the second rotation in 2008. Experience is taken into account to specify a training program for the contingent of the second rotation in 2009. Experience of task performance by UKRPOLBAT units from every rotation is generalised on the basis of results and conclusions and submitted to the National Defence Academy of Ukraine.

Participation in the anti-terrorist Operation 'Active Endeavour' (OAE) [10] is a priority for the Ukrainian Navy in NATO-led operations. UAF participates in OAE through the deployment of naval ships on a rotation basis, functioning of Initial Point of Contact on the basis of the Naval Command, and appointment of liaison officers from the Naval Command to the Operations Command.

In 2008, the 'Hetman Sagaydachniy' frigate with a Ka-27PR helicopter, two crews and a special purpose inspection team participated in OAE. Between November and December of the same year, the 'Ternopil' corvette (with special purpose survey command) performed anti-terrorist tasks in the framework of this operation.

Initial national POC daily performs an exchange of information between Ukrainian Naval Command and Allied JFC Maritime Component Command (Naples, Italy) on the monitoring of navigation, potential terrorist and other illegal activity on marine communications

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[10] The purpose of NATO anti-terrorist operation "Active Endeavour" is to get rid of international terrorist organisations through the prevention of illegal maritime shipments of weapons, ammunition, explosive substances, drugs and illegal migration from the most threatening regions – the Middle East, North Africa, the Strait of Gibraltar and the Black Sea.

The basic tasks of the operation are collection and exchange of information about suspected vessels in accordance with requirements of international maritime law – for ships deployed to permanent presence forces in the area of the Mediterranean Sea; exchange of information with Operations HQ about the control of commercial vessels navigation.

in the Black Sea, Mediterranean Sea and in the ports of Ukraine. An exchange of restricted information commenced in January 2008.

In 2009, the 'Ternopil' corvette was preparing to contribute to OAE between October and November 2009. UAF naval officers took part in short-term internships on NATO ships; the 'Tailor' USN frigate; the 'Ocean' UK Royal Navy assault landing helicopter platform; the 'Clarkring' USN frigate and a Norwegian coastguard ship.

In addition to this, English courses are organized in order to ensure a level of English language proficiency among the personnel assigned for the deployment in OAE, as well as courses of basic maritime procedures in the framework of international agreements.

From 30-31 March, a seminar on the Summary of Ukraine's participation in OAE in 2008 was held on the basis of UAF Naval POC (Sevastopol) with the participation of representatives from Allied Command Transformation and Allied JFC Maritime Component Command (Naples, Italy).

Ukraine supported the activities of the International Security Assistance Forces in Afghanistan (ISAF). An air corridor was provided for NATO aircraft which operate in the framework of ISAF operations in Afghanistan and UAF medical personnel were deployed. Three military medics participate in ISAF within the group of the Chaghcharan province reconstruction.

The Armed Forces of Ukraine continue to participate in the *NATO Training Mission in Iraq* (NTM-I). There are currently ten UAF officers partaking in NTM-I as advisors and mentors.

Nevertheless, there are some problems in this area related to the development and authority of UAF peacekeeping units. Problems associated with UAF peacekeeping activities as a whole include the following:

Slow mechanism of decision-making for Ukrainian peacekeeping contingent's deployment to international peacekeeping operations. Decision-making procedures take approximately one year commencing with the receipt of UN request to the deployment of the contingent. Such terms make a prompt response in case of a crisis or following an urgent UN request impossible.

The absence of a system involving the experience gained from participation of Ukrainian units in peacekeeping operations.

The practical impossibility of retaining military servicemen with peacekeeping experience at contract service.

One of the initiatives provided by the foreign policy and military departments of Ukraine in cooperation with NATO was the proposal to include UAF units in the *NATO Response Force* (NRF). In order to implement this initiative in 2009, it was proposed to include the NBC platoon from the 8th Army Corps to the NRF rotation in 2010. Consultations between UAF officers and NATO experts on the improvement of JRRF NBC unit training in the context of the potential participation in the 15th NRF rotation were held on 14 February 2009 so as to provide for high-quality unit training. From 4–31 March 2009 in Kyiv, UAF GS officers and Land Force Command officers participated in a working meeting on the poten-

tial deployment of Ukraine's NBC platoon to a CBRN battalion formed by Germany in the 15th NRF rotation from July–December 2010.

Working meetings with representatives from Germany's armed forces were also held to determine the terms of NBC platoon deployment and other issues.

Ukraine's initiative allows for greater cooperation with NATO. However, there can be problems of disparity between political and governmental decision-making systems if NRF activation is required. In fact, any deployment of Ukrainian military units to operations abroad should be ratified by the Verkhovna Rada of Ukraine. Will Ukraine be able to fulfil its obligations to NATO partners under such conditions?

Permanent consultations and other activities in the framework of the implementation program are held with NATO consultants on the process of UAF transformation: *improvement of the defence planning system*, *logistics reform*, *professionalisation and improvement of personnel management in the Armed Forces of Ukraine*, *development of the system of military education and combat training*, *standardisation*, *and military-technical cooperation.*

Ukraine is planning to introduce a new system of strategic defence planning based on a capabilities-oriented method. For this purpose, the following steps are envisaged:

1. To draft a joint cycle of planning in the Armed Forces of Ukraine through a combination of processes of UAF strategic deployment and defence and budgetary planning under the Defence Minister's direction.

2. To achieve a capabilities life cycle management system in order to implement the whole spectrum of operations as a basis for a new program of UAF development over five to six years.

3. To draft the Defence Minister's military-political guidelines to organise and implement long-term strategic planning.

4. To make amendments to the Statement on Strategic Planning at the Defence Ministry, on the organisation of strategic planning for UAF deployment, mid- and short-term defence planning in the Armed Forces, and the annual cycle of budgetary planning.

The *Program of professionalisation and improvement of personnel management system* in the Armed Forces of Ukraine provides for the introduction of a centralised personnel management system and its improvement. A concept of personnel policy in the Armed Forces[11] was adopted in 2007. It provides for: an individual approach in personnel operations with servicemen; the management of service careers; impartiality in the assessment of a servicemen's activity and effective application of its results; and the effective use of personnel with combat and peacekeeping experience.

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[11] Concept of personnel policy in the Armed Forces of Ukraine is approved by the Order of Defence Minister #659 dated 27 November 2007.

Compared with the existing system, the centralised personnel management system is more flexible and allows for the efficient and effective management of promotion (rotation) issues.

Two information and analytical systems have been introduced to improve personnel management in the Armed Forces of Ukraine:

1. 'Personnel': maintaining a system for recording personnel service, and individual registration of retired persons.
2. 'Card': maintaining a system for recording personnel service, individual registration of civil personnel and the recording of retired civil officers.

However, the introduction of a centralised recording system of both military and civil officers in the Defence Ministry does not help solve a key problem related to the personnel: the practical impossibility of introducing a system of officer rotation in terms of positions. The absence of service accommodation and the impossibility of providing adequate indemnification for rental accommodation means that an officer's career development is often considered only within his place of service. Only after a significant evolution in the status of a serviceman, for instance, through graduation from the National Defence Academy, can a change of place of service take place. Such a situation does not allow an officer to gain versatile skills in both the administrative and teaching fields. It does not facilitate the normal personnel support or versatility of officer corps development.

NCO structures and training processes are, nonetheless, improving. The organisational structures of educational military units have been enhanced in accordance with the Defence Minister's Order dated 14 February 2009. Typical outlines of the organisational structures of educational military units were coordinated in the first half of 2009; staff from educational military units is also currently being coordinated.

One of the most difficult tasks for the Armed Forces of Ukraine is *to create professional NCO corps*. For this purpose, the organisational structure of educational military units is improved so as to train non-commission officers and petty officers.

Introduction of a multilevel NCO training system in the Armed Forces of Ukraine is completed through training at basic, middle and higher levels held in educational military units and defence colleges.

Multilevel training of UAF Land Forces NCOs is held at the following levels:

- Basic (section commander – senior sergeant of a platoon and their equivalents);
- Middle (senior sergeant of company – senior master sergeant of battalion and their equivalents);
- Higher (senior sergeant of regiment, brigade and higher).

Training of basic-level sergeants started on the basis of UAF Air Force Joint Training Center (JTC) (Vasilkiv). Their training programs are revised. The term of sergeant training is increased from 1.5 to 3 months after special training was introduced.

Training of senior sergeants of companies, batteries, main petty officers of battalions, squadrons and their equivalents at the middle level of training of sergeants and petty officers commenced in UAF Land Forces at the Sergeants Training Centre on 1 December 2008. Training for sergeants from the higher and middle levels started on 5 May 2009.

Representatives of the MPRI company are permanently working at the Sergeants Training Centre and provide advisory assistance on training of petty officers at the middle and higher levels.

The Military Sergeants College at the National Technical University "Kharkiv Polytechnic Institute"[12] commenced its educational programs on 12 August 2009.

All programs were drafted by the National Technical University "Kharkiv Polytechnic Institute" under the consent of the UAF Land Forces Command. This process lasted three months and, as a result, a new specialty was established under the program of junior specialist training: "administration in military units." This specialty will be recorded in the diplomas of students graduating from the Institute.

This learning system supports the requirements of the Bologna Agreement and the best practices in other European countries have been applied to support higher accreditation levels in Ukraine. There might also be grounds to establish a defence institute in Kharkiv. The general structure of the college will consist of two separate sections. The first section will train mid-level junior experts for a period of 2.5 years. Military servicemen will participate in re-training courses at middle and higher NCO levels for a period of up to six months in the second section. Cadets will study 44 disciplines, a third of which are general subjects to be taught by the most experienced teachers from the National Technical University "Kharkiv Polytechnic Institute." The remaining military disciplines will be taught by military officers and civil teaching staff. 60% of cadets selected from the Armed Services are from the Land Forces servicemen, 30% from the Air Force and 10% from the Navy. One fifth of cadets have the honoured status of peacekeeper.

The professional training of NCOs in combination with payment for their service could reduce problems associated with the creation of a professional sergeant corps. The Ministry has been working to address this issue since the beginning of 1998.[13]

In 2008, the Armed Forces shifted to the *double principle of troops manning* under a wartime organisation – with citizens and reservists liable for military service. At the end of this year, 1,640 reservists, including 545 officers, worked in Ukraine's 36 military organisational structures.

JRRF military units are priority units for reservists. They are trained at assemblies within regular or combined units.

Reservists were firstly involved in "Marine Knot 2008" staff exercises where they performed assigned combat tasks within regular units. The simplification of acceptance proce-

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[12] "Sergeant Academy Opened Doors," *National Army*, 27 August 2009.

[13] In 1998, the author of the article dealt with pre-training of the first sergeant group which was sent to training courses at the U.S. Sergeant School and became the first 'swallows' of the sergeant corps in the Armed Forces of Ukraine.

dures and increase in reservist allowances provided for the achievement of established indexes of military reserve manning, and confirmed both the suitability of chosen tactics and feasibility of reservist training plans. 3,000 reservists will be incorporated into Ukraine's military organisational structures.

In 2009, Ukraine commenced activities aimed at the improvement of existing military reserve structures, including a training system applying NATO standards. Measures were taken to improve the regulatory and legal environment for service in the reserves, procedures of manning and their education. Related data is provided in official records and the 2008 White Paper.

Measures to undertake further reform in the reserves system have been temporally suspended due to lack of funding. Reservists, including those in JRRF units, continue to face considerable difficulties.

Firstly, recruitment is a considerable problem. Secondly, the state of affairs is exacerbated by a systemic problem whereby reservists fail to arrive at an assigned assembly point. A considerable number of reservists are also disappointed by the conditions of service. As a result, the output of reserve service remains unconvincing.

Considerable efforts have been made to reform the system through the *transformation of military education and combat training*. These measures are mainly aimed at the improvement of military expert training, in particular:[14]

- Structural optimisation of the network of higher military educational establishments and military educational units was achieved on the basis of Armed Service oriented principle;

- Education and training of operational-tactical level officers in the National Defence Academy of Ukraine were shifted to a two-year system, and the operational-strategic training period for officers was prolonged;

- The National Defence Academy of Ukraine was reorganised into the National Defence University.[15]

- Training of military experts under the 'student-cadet' model was terminated, except for separate specialties (lawyers, airfield technical support specialists, refuelling service specialists, etc.).

A conference for the US-Ukraine Joint Group held on 19 May 2009 was an opportunity for teachers from Ukrainian and NATO higher military educational establishments to exchange lessons learned. Short-term visits by delegations from military units and higher educational establishments also provide an opportunity for counterparts to establish "broth-

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[14] See the White Paper, "Defence Policy of Ukraine" (2008).

[15] Presidential Decree "On the National Defence University of Ukraine" #1217/2008 dated 30 December 2008; The Decree of the Cabinet of Minister of Ukraine "On the Reorganisation of the National Defence Academy of Ukraine" #1089 dated 17 December 2008.

erly relations." A cadets forum for young commanders with the participation of students from NATO member states and partners is also scheduled to be held in Ukraine.

'NATO week' events are held each year at the National Defence Academy of Ukraine, and cooperation between the Multinational Staff Officers Centre (MSOC) and corresponding NATO structures is supported by both sides. It is also considered to provide access to the Experience Analysis and Generalisation Centre's database, as well as NATO publications on lessons learned in operations.

An analysis of Ukraine's military education reform efforts shows that the series of experiments undertaken in the field of military education in recent years have been largely unsuccessful. As stated in the *White Paper* of 2008, the principle of one-year learning at the National Defence Academy of Ukraine was cancelled. Failures of this nature were the result of the introduction of short-term training without an attempt to understand NATO's military education system, ignoring the role of the student in the learning process, and insufficient financing.

Similarly, the 'student-cadet' training system failed to function efficiently. The absence of specialized schools able to train officers for specific positions and company-battalion level training courses require focusing education of commander features exactly at the level of a military university, however this appeared to be impossible applying the 'student-cadet' scheme.

Thus, it is necessary to intensify the training process by reducing its duration, especially in conditions of rapid changes within the military – but this was not understood immediately and therefore quite often, ancient techniques were still in place.

When analysing transformations in the Armed Forces of Ukraine, we can state that there is a range of problems which must be solved considering external prosperity and rich factorial materials of annual 'White papers' of the Armed Forces of Ukraine.

The most important ones are the following:

1. Systematic under-financing of measures aimed at the development of the Armed Forces of Ukraine resulted in an accumulation of problems. First of all, they are related to the technical re-equipment of troops and the creation of modern command and control systems and armaments.[16] Similarly, reform measures are slowed down or unsuccessful.

2. The strategy of so-called 'Window dressing,' but without solving defence-related problems.

3. Lack of readiness to accept those changes which are offered by foreign military experts or which are required under the circumstances and seem obvious to the leaders of higher grade.

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[16] M.M. Tsitsyurskiy, "Military Transformation of the Armed Forces of Ukraine," MOD official web-site (2008); www.mil.gov.ua/index.php?lang=ua&part=transformation&sub=6.

Military and political leadership often hides behind a 'smoke-screen' of words, interviews, official reports and White Papers, so as to avoid social turmoil. Therefore, we see 'double standards' in covering the activity of the Armed Forces of Ukraine in mass media. On the one hand, we see 'victorious' or reassuring reports on the work achieved. On the other hand, former Defence Ministry leadership or independent analytical centres, as a rule, severely criticise the government and military leadership for the sharp deterioration of combat readiness of the Armed Forces, the absence of purchases of armaments and equipment, practical exhaust of resources of basic types of armaments, etc. This criticism is no less reasonable or legitimate.

The author argues that the urgent problems associated with the transformation of Ukraine's Armed Forces can be resolved through the material dimension of budget projections and through the capacity of the senior management to remain transparent and accountable, and to successfully represent the interests of the Armed Forces to the political leadership of Ukraine.

Ukraine's Defence Ministry is one of the country's most reformed institutions and is actively moving towards Euro-Atlantic integration. However, the 'window dressing' habit taken from the Soviet era may result in a misunderstanding of Ukraine's efforts and refusal by Western partners to cooperate. Continuation of such a policy will result in the gradual accumulation of negative tendencies and the deterioration of combat readiness and potential.

e-Learning as an Instrument for Implementing the Knowledge Management Concept in the Armed Forces of Ukraine

Vyacheslav Ryabtsev and Oleksandr Permyakov

An analysis of the development of the theory and practice of armed conflict allows one to make a conclusion about the presence of a tendency to increase the importance of its intellectual component.[1] Hi-tech weaponry and military equipment require a corresponding qualification of service personnel. The dynamic, fleeting character of combat action, close inter-service cooperation, the high cost of erroneous decisions at all levels of the command and control structure require competence from commanding bodies. Thus, human resources together with traditional resources in the financial, material, technical and information domains are critical when considering a resource-oriented model of Ukrainian Armed Forces (UAF) management. The basic features of this resource are qualitative rather than quantitative and the competence of personnel remains essential.

Traditionally, the competence of personnel is determined through the "knowledge – ability – skill" triad and its formation is considered the basic task of Ukraine's military education system. At the same time, the maintenance of the triad depends on the system of professional (commander) training. Obligatory advanced training is held once every five years. However, the two systems which are presently aimed at training UAF personnel (military education and professional (commander) training) exist separately and inherent problems substantially reduce their efficiency.

On the one hand, the reform of Ukraine's Armed Forces testifies to the considerable attention that is paid to the system of military education and personnel management.[2] However, unfortunately, the results of these efforts fail to support the declared goals. In addition, students graduating from higher military educational establishments (HMEE) are often appointed to positions which do not meet the level of their education, and sometimes to positions which are held by other officers. The number of servicemen wishing to leave the

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1   O.A. Ilyashov, "Future Wars as a Subject of Scientific Research," *Science and Defence* 2 (2008).
2   *State Program of Development of the Armed Forces of Ukraine for 2006-2011* (basic provisions).

Armed Forces is also increasing, particularly young officers and servicemen with peace-keeping and multinational experience or training in foreign HMEE. This process has continued regardless of the counter-measures which have been introduced.

On the other hand, the level of training required for acceptance to the National Defence Academy of Ukraine[3] is an effective indicator of the level of professional (commander) training in military units (C2 bodies). Unfortunately, the selection committee has noted the decline of this level every year. Every Academy's department aims to close 'gaps' in student knowledge.

A number of objective and subjective reasons contribute to the situation described above. However, the inefficiency of human and intellectual resource management in the Armed Forces is a key contributing fact.

This problem is not unique to our Armed Forces. Every complex organisational system (governmental structure, large corporation, security sector department, etc.) faces this problem at certain stages of its development. Interdisciplinary theoretical and practical methodology termed '*Knowledge Management*' developed in the last decade has been the response to this challenge. Psychologists, teachers, practicing managers, and IT experts have contributed to the development of this concept. The essence of the 'Knowledge Management' concept is to form a special system of organisational, methodological, information, financial and other measures aimed at the creation and development of an organisation's adaptive intellectual resource as a synergistic combination of corresponding human resources. Competence and expert knowledge are the basic elements of this methodology.

'Knowledge Management' has become highly effective in increasing the efficiency of large corporations, firstly, through its capacity to increase personnel motivation. The experience gained in this area by business structures has becomes a subject of research among UAF military education institutes for their own reform efforts. Adaptation of the competence approach to reflect UAF needs and determine requirements for military experts is being considered as a potential area of reform.[4]

However, we believe that the 'Knowledge Management' concept has not been fully evaluated, particularly in relation to the management of personnel resource generation in the Armed Forces. The military education system encompasses initial, basic training. The proper state of readiness is maintained by a combat (operational) training system which includes a professional (commander) training system. The system of personnel authorities deals with the career development of military experts. However, there is still a need to es-

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[3] As the National Defence Academy of Ukraine is in the process of transforming into the National Defence University of Ukraine, the author of the work uses both names (and abbreviations: UNDA and UNDU correspondingly). UNDA describes the previous and current state, and UNDU – the future.

[4] M.I. Naumenko and Yu.I. Prikhodko, "Military Education Quality Control: Theory, Methodology, Practice," *Science and Defence* 1 (2009): 40–50; M.I. Naumenko, "Military Education in Ukraine: Status, Problems, Prospects of Innovative Development," *Science and Defence* 2 (2009): 24–32.

tablish a joint, integral intellectual resource management system on the basis of the 'Knowledge Management' concept.

The *purpose* of this research paper is to examine prospects for the establishment of an effective knowledge management system in the Armed Forces. The *objective* of this paper is to determine a concept of knowledge management in the Armed Forces; the role and basic tasks of key components of the management system in the UAF command and control system; and the utility of e-learning to implement a knowledge management concept in the Armed Forces.

Knowledge Management in the Armed Forces of Ukraine

It should be noted that knowledge management is not a new concept for our Armed Forces. It is necessary to determine the meaning of terms and concepts which are used so as to achieve a full understanding of the topic. As 'Knowledge Management' is a relatively new theoretical and practical methodology which is not sanctified by academic traditions, there are many interpretations of basic terms and concepts which underline its conceptual vehicle. We will take only those which are the most suitable to specific features of the Armed Forces.

Knowledge management is the combination of separate aspects of personnel management, innovation and communication management, and the use of new information technologies in the management of organisations. It incorporates different disciplines, various approaches and concepts.[5]

Knowledge management includes:

- Finding the knowledge required to successfully solve a problem;
- Incorporating what is most important for analysis and decision-making;
- Estimating knowledge;
- Including knowledge in the context of available information;
- Integrating information into all processes (analysis, planning, implementing actions, assessment of result), so as to qualitatively improve the administrative competences of organisations.[6]

Competence is an aggregate of knowledge, skills and individual traits which allow for the fulfilment of a specific task (or range of tasks). Competences are described as a set of requirements towards the knowledge, skills and individual traits of an employee for a particular function, position or role in a project. If the professional skills, knowledge and individual traits of an expert coincide with the requirements for a given position or task, then

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[5]   A.L. Haponenko, *Knowledge Management* (Moscow: IPK of Civil Service, 2001). – 52 p.

[6]   "Competence and Expert Knowledge Management," http://www.consultations.ru/consulting/ competence.
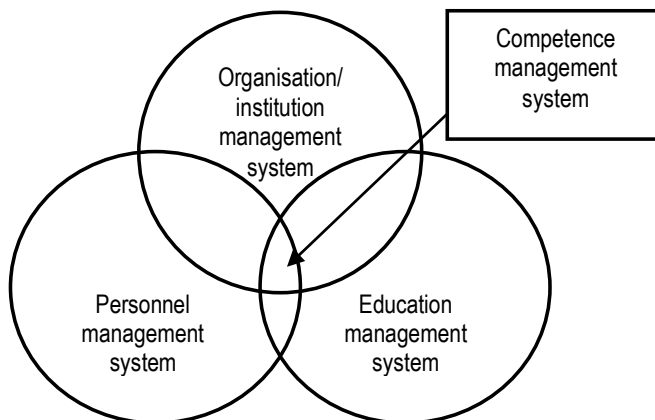
Figure 1: The Position of the Competence Management System in the
Traditional Management System.

corresponding work, under other favourable circumstances, can be qualitatively and effectively achieved by an expert.[7]

Qualification (a synonym is expert knowledge) is a degree of development of specific competences of an expert (first of all – in light of knowledge and skills). The higher qualification or the more competent an employee, the more efficiently and qualitatively work is achieved within the framework of his competences.[8]

Model of competences is a list of competences with specific indicators in a given professional activity. A model includes competences which are the most essential for an organisation at a specific stage of its development. An effective model provides for the drafting of competence profiles – sets of competences for different levels of management and activities.[9]

Every corporation that establishes a knowledge management concept has the potential to successfully create a corresponding competence management system. In general, such a system is not created on a blank canvas. As shown at Figure 1, this system is a component of several traditional systems.

It is assumed that there are necessary preconditions to successfully create a competence management system in the Armed Forces including:

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[7] A.O. Arefiev and A.D. Bazhenov, "Competence Management and Human Resource Rotation in Project-Oriented Agencies," www.intalev.com.ua/index.php?id=12537.

[8] Ibid.

[9] Yu. Vaschenko, "Model of Competences" (Sample of competence description); http://posada.com.ua/useful/employer/7/173.

1. Establishment of continuous military specialist training is acknowledged as a priority for the military education reform process.

2. System of centralised personnel management which is introduced in the Armed Forces and provides for:

    - The centralisation of personnel management;
    - Personalised and automated personnel recording.[10]

3. One of the mechanisms of officer career management is the position categoriser system which contains qualification requirements for candidates based on occupation: age, education, work history and previous experiences in official activities (command, staff, technical).[11]

4. Reserve service is introduced.

5. Automatic control systems with different functions are introduced as a basis for the creation of a Joint Automatic Armed Forces Control System. An example of the system approach to this concept is a project for the creation of the Joint Automated Administrative and Economic Processes Control System (JAAEPCS) in the Armed Forces of Ukraine. The Automated Personnel Management System is a subsystem of this system.

However, regardless of these preconditions, their realisation, without a capacity to achieve new levels of quality in the human resource management system, will not allow for the implementation of a desirable system. Corresponding defects are inherent to the realisation of each of the abovementioned preconditions. The most essential of these are:

1. Declared continuity of training has a substantially discrete character. Advanced training held once every five years under the condition of a 'blank cycle' (due to a range of financial, organisational and methodical problems) of a professional (commander) training system, cannot be considered sufficient for the maintenance of military expert competence at a proper level.

2. Introduced personnel management system has a weak relation to the military education system (insufficient level of interaction to identify experts and requirements to corresponding expert categories when distributing students who have graduated from higher military educational establishments).

3. The position categoriser does not determine corresponding competences clearly enough. For example, education is determined only by one level (tactical, operational-tactical or operational-strategic). It can lead to the manning of positions with officers who do not possess the necessary knowledge and skills.

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10 *Personnel Policy Concept in the Armed Forces of Ukraine*, approved by Defence Minister's Order #659, 27 November 2007.

11 *The White Paper 2007 – Defence Policy of Ukraine* (Kyiv: Ministry of Defence of Ukraine, 2008), p. 120.

4. The mechanisms of training and retraining to fill specific positions are not clear for the reserve service in general.

5. JAAEPCS does not include the automated military education and science management system at this stage, and accordingly, the advantages of centralised information and analytical support to human resource management processes become problematic.

Consideration of the abovementioned task of development and the introduction of a competence management system as a key element of the future knowledge management system in the Armed Forces of Ukraine is urgent. This system should fulfil the following tasks.

1. In military education and training:

    a) To create a joint educational environment in the Armed Forces as a set of educational modules (not disciplines). It will allow for the required flexibility of a training process. Every module should include the following components:

        - Name of the module;
        - Educational level;
        - Competences by modules as a set: "knowledge – ability – skills," with required prehistory (modules which should be taught prior to the learning of a given module) on every component of a triad;
        - Terms of 'compatibility' of the achieved knowledge/abilities/skills.
          The introduction of this last component is determined by the rapid changes which take place in the theory and practice of armed conflicts;

    b) To integrate the content of course training to the UAF ioint educational environment under the same principle as the basic educational disciplines. Thus, the system of course training should be clearly divided into two areas:

        - Problem-oriented courses are intended to teach specific problem areas of activity and engagement. For example, "European and Euro-Atlantic integration of the Armed Forces of Ukraine" or "Process of operational planning applying NATO standards";
        - Position-oriented courses are intended to train personnel to hold specific positions. For example, commander of the mechanised company or on-board translator, and so on.

        The first type of courses should be subject-oriented and basic for officials which are intending to fill positions related to the performance of duties in the noted problematic area. The successful completion of the second type of courses should become obligatory for holding a specific position.

The advanced training system should terminate the "once in five years" principle because it does not meet the strict requirements for increasing the professional levels of UAF personnel;

c) To integrate the content of professional (commander) and combat (operational) training to the UAF joint educational environment. It will provide for the development of a "knowledge – ability – skills" system as well as assessment under each of these components for:

- Content of professional (commander) training;
- Activities of combat (operational) training.

2. In personnel management:

a) To specify the position categoriser down to the set of competences with the necessary level of accordance (mastering of the given competence). It means the establishment of 'competence profiles' for every position;

b) To create and support a UAF personnel educational level database as the component of a centralised personnel database. The career development for every serviceman (civil officer) should be shown in the UAF joint educational environment including:

- Module/topic of professional (commander) training/activity of the combat (operational) training;
- When the training took place;
- What results were achieved in each of the "knowledge – ability – skills" components;

c) To create and manage a personnel relocation plan where the following information should be indicated:

- Who;
- When;
- What position (positions) he/she plans to assume;
- Requirements for the appointment (learning of specified modules, an internship, and so on);
- Recommendations for acceptance to specific training/retraining programmes.

The level of information, analytical support and artificial intelligence required for the development of technical facilities for a competence management system facilitates its capacity to support an intellectual education and training quality control system. The position of this system within the structure of the Joint Automatic UAF Control System is shown in Figure 2.
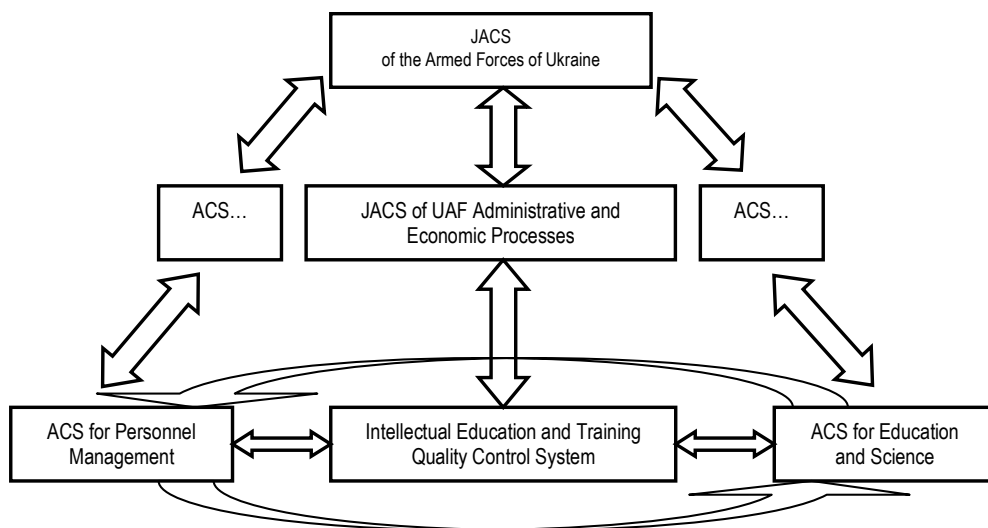
Figure 2: Position of Intellectual Education and Training Quality Control System within the Joint Automatic UAF Control System.

The transformation of personnel management and educational systems using only traditional forms of education and training is attractive in a financial and temporal sense. However, the experience of leading countries testifies to the successful application of e-learning and mixed (*blended*) training technologies[12] which support expert training over a sustained period of time.

The Armed Forces of Ukraine have paid increasing attention to e-learning highlighted by the fact that one of the basic tasks of the military education system in 2008-09 was "…to continue work on the informatisation of the military education system aimed at the satisfaction of educational information and communication needs of educational process participants, *introduction of e-learning* [author's emphasis] applying information and communication technologies together with traditional means in educational processes and library science…."[13]

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[12] U.S. Department of Defense, *Implementation Plan for Advanced Distributed Learning* (Washington, D.C.: Office of the Deputy Under Secretary of Defense (Readiness), 19 May 2000), p. 117; *UK Defence e-Learning Strategic Vision and Policy*, DGTE 5/3, 6 March 2003, p. 8; *Advanced Distributed Learning* (ADL) / eLearning – Learning Objectives (Norwegian Defence Advanced Distributed Learning Centre, 2004), p. 22; Bundeswehr, *Principles of Distance Learning in the Bundeswehr* (Bohn: Chief of Staff, 2001), p. 16.

[13] Defence Minister's Order #518 "On the Results of Activity of Military Education System in 2007-2008 Academic Years and Tasks for Its Further Development," 31 October 2008

Let us have a more detailed look at the tendencies and prospects of e-learning as an instrument to implement the 'knowledge management' concept in the Armed Forces of Ukraine.

Tendencies in the Application of e-Learning in the Military Expert Training System

The experience of participation in the PfP Consortium of Defence Academies and Security Institutes Working Group for E-learning (hereinafter referred to as the 'Consortium'), negotiations with experts for e-learning in military training, and an analysis of literature in this field, support the presence of certain tendencies which are inherent in all countries that apply e-learning in the armed forces.[14] Major tendencies are as follows.

1. *Standardisation of e-learning technologies at national and international levels.* Leading experts believe that the appearance of a *Sharable Courseware Object Reference Model (SCORM)* in the 'military' e-learning system in 1999, and its assignment as an international standard, contributed to the exponential increase of e-learning volumes. Two versions of this standard coexist now: SCORM 1.2 and SCORM – 2004. The main differences between the versions lay in the increase of flexibility and adaptability of SCORM – 2004 e-learning resources for a student's requirements.

Another aspect of this tendency is the establishment of strict requirements to content, presentation, design and multimedia support to e-learning educational materials. The example of such regulations can be seen in the documents drafted by the Norwegian Defence Advanced Distributed Learning Centre.[15]

The introduction of all types of standards assists the development of the military expert e-learning system.

2. *Centralisation of processes of order (development), introduction and use of e-learning resources. Creation of centralised repositories of e-learning resources at national and international levels.* The practical experience gained during the last decade in terms of the application of e-learning in the armed forces in different countries (extensive introduction of e-learning technologies in military expert training at the end of the 1990s) contributed to the development of a coordinating element in the e-learning structure. For example, the *Advanced Distributed Learning Coordinating Laboratory (ADL Co-Laboratory)* is the coordinating element in the US army. It was created in 1999 as a structural subdivision of the *Institute for Defense Analysis*. The laboratory undertakes the following tasks: cooperative research, development and assessment of tools, standards, content of educational materials

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[14] U.S. Department of Defense, *Implementation Plan for Advanced Distributed Learning*; *UK Defence e-Learning Strategic Vision and Policy*; *Advanced Distributed Learning* (ADL) / eLearning – Learning Objectives; *Principles of Distance Learning in the Bundeswehr*.

[15] *Norwegian Defense ADL Regulations, Good Directions or Just Plain Distractions* (Norwegian Defence Advanced Distributed Learning Centre, 2006), p. 9

and recommendations for the *Advanced Distributed Learning Initiative*.[16] The Norwegian Defence Advanced Distributed Learning Centre plays a similar role in Norway.[17] The *Advanced Distributed Learning Working Group (ADL Working Group)* coordinates all e-learning projects in the framework of the PfP program; The ADL Working Group has approximately ten e-learning courses designed by project participants. A corresponding subdivision with similar tasks was created within the *Supreme Allied Command Transformation*.

The coordination of efforts in the development of an e-learning system at the national level allows for a decrease in expenses and an increase in the quality of resources and methodological support to e-learning. The availability of international e-learning resource repositories assists in the approach of national military education and training systems and the development of joint educational standards.

3. *International cooperation in the development and use of e-learning resources.* The origin of international e-learning standards and attention of international organisations such as the Consortium to these technologies resulted in the creation and rapid development of international cooperation in this area. Almost all Consortium e-learning courses are the result of such collaboration. For example, the "*English Skills for Staff Officers*" e-learning course was developed by Ukrainian experts working at the International Information Technologies Research Centre in Kyiv on the order of the George C. Marshall European Centre for Security Studies, with the support of the Rakovski Defence and Staff College (Sofia, Bulgaria), and on the basis of materials provided by the Texas Defence Language Institute (the United States).

Another striking example of cooperation in military expert e-learning is the emergence of international educational portals such as the "Baltic Virtual International Military Academy" project (*BALTVIMA*). This project initially combined eight Scandinavian and Baltic states, and has now grown into a large-scale project with the participation of countries from Southern and Eastern Europe and Africa. The National Defence Academy of Ukraine has been actively cooperating with the Norwegian Defence Advanced Distributed Learning Centre for two years within the framework of this project. The Center is responsible for the technical basis of the virtual academy.

International cooperation in e-learning assists in building experience and avoids the duplication of errors.

4. *The potential integration of the e-learning system into the personnel (human resources) management system.* The use of e-learning in Ukraine's military expert training program has demonstrated the efficiency of this technology as an instrument of the personnel competence management system. E-learning technologies provide managers with tools for personnel training as well as all types of control: incoming, intermediate, concluding control and verification in accordance with positions of varied levels of knowledge and abilities. The Norwegian Armed Forces are an example of the successful integration of mili-

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[16] U.S. Department of Defense, *Implementation Plan for Advanced Distributed Learning.*

[17] *Norwegian Defense ADL Regulations.*

tary education and personnel management system where all e-learning results are automatically displayed in personal files. There are recommended, compulsory, and optional courses, as well as e-learning courses which are assigned following a commander's permission.

Implementation of the 'knowledge management' concept applying e-learning technologies also supports the personnel to reach their potential more effectively and help save funds for the organization through a task-oriented training system (to train only when it is needed and those who do need it).

5. *The application of e-learning in the combat (operational) training system.* E-learning has demonstrated its effectiveness as an instrument of the combat (operational) training system in recent years. The special e-learning portal was created during the preparation for the 'Viking-2005' international staff military exercise. Servicemen from different countries use this portal to participate in courses such as "Peace Support/Peacekeeping Operations," "Law of armed conflict," "Operations planning process," and so on. The experience gained during these exercise has been used by Sweden, for example, to train its national peacekeeping units.

This experience is also useful for the Armed Forces of Ukraine, particularly when the Operational Training Guidelines of the Armed Forces lists e-learning as one of the forms of professional training. At the same time, it is no secret that the state of commander (professional) training is affected by a range of reasons including:

- Corresponding officials do not have the experience required for the development of high quality educational materials;
- Absence of required literature;
- Lack of preparation time required for lessons and lectures.

The efficiency of professional (commander) training in the army could be considerably improved through the development and use of corresponding e-learning resources under the authorship of leading experts in the given profile area.

6. *Use of state-of-the-art information technologies to increase the efficiency of the e-learning system.* When assessing critical information technologies, two aspects should be considered: in the technical and programmatic areas (pedagogical or methodological aspects are also significant for e-learning technologies). Experiments are conducted in the software area to use various mobile devices as terminals for access to educational resources (large-screen telephones, smart-phones, and pocket personal computers). Ideas are now focused on the terms of application of the so-called Web-2.0 technologies (Wiki, blogs, public networks) in the e-learning software area. Their essence rests in providing the user with maximum flexibility and an adaptive and friendly work environment with information resources. Experience in information technology highlights that developments which seem revolutionary today (technology, methodology, hardware) become commonplace tomorrow, and standard the day after tomorrow.

It should be noted that the Armed Forces of Ukraine are only just beginning to develop an effective e-learning system.[18]

Special emphasis should be placed on the research that is being undertaken at the Kharkiv Air Forces University to determine theoretical principles of military expert e-learning; to create the first UAF e-learning unit at the National Defence Academy; and to develop e-learning software at Kyiv's National Shevchenko University Military Institute. Unfortunately, e-learning is the domain of enthusiasts in the Armed Forces of Ukraine, and its introduction into mainstream learning processes has been episodic at best. Moreover, advantages provided by e-learning can be effectively applied only if its introduction, application and development are supported by a systematic approach within a predictable and controlled environment. Thus, the e-learning system in the Armed Forces is developing as a subsystem of the military education system.

The e-Learning System in the Armed Forces of Ukraine

The experience of implementing e-learning systems in other Defence organisations around the world has assisted the Armed Forces of Ukraine in its efforts to rapidly design and establish a problem-free system. However, without an e-learning system (ELS) coordinating centre, efforts to introduce e-learning technologies into Ukraine's military education and training system are complicated. The Ukrainian National Defence University E-learning Centre (UNDU ELC) is well-placed to assume the role of a coordinating body.

On the whole, the ELS organisational structure includes:

- Working group for e-learning introduction in the Armed Forces of Ukraine established in accordance with the Defence Minister's Order;
- Ukrainian National Defence Academy E-learning Center.

Working Group for e-Learning Introduction in the Armed Forces of Ukraine consists of representatives from the Ministry of Defence's (MOD) Department of Military Education and Science, Department of Transformation and Information Technologies and the National Defence Academy of Ukraine. If required, the working group can include representatives from other command authorities and UAF structural units.

The working group is tasked to organisationally support e-learning introduction into the Armed Forces of Ukraine.

The basic tasks of the *UNDA E-learning Centre* are as follows:

- To draft regulatory and legal ELS-related documents;
- To provide scientific and methodical support to the ELS development process;

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18 V.H. Radetskiy, "Introduction of e-Learning Technologies in Military Education System," *Science and Defence* 3 (2007): 45–49; I.O. Romanenko, "Prospects of e-Learning Introduction in UAF Combat Training System," *Science and Defence* 1 (2008): 43–46; V.V. Ryabtsev, "Prospects of e-Learning in the National Defence Academy of Ukraine," *Modern Information Technologies in Security and Defence Sector* 1:1 (2008): 37–41.

- To develop e-learning resources applying international e-learning standards;
- To conduct scientific research in: psychological and teaching basics for military expert e-learning; methodological principles of organisation and realisation of educational processes applying e-learning systems or e-learning technologies, e-learning software and hardware;
- To draft recommendations on the organisation and realisation of educational processes applying e-learning systems or e-learning technologies;
- To draft programs to train and retrain human resources for ELS;
- To participate in the establishment of a central UAF ELS E-learning Resource Repository and its support;
- To conduct an initial examination of e-learning resources intended for the use in the Armed Forces of Ukraine;
- To participate in international e-learning cooperation;
- To develop a system of information and analytical support to the ELS.

The further development of the ELS organisational structure is provided in the following guidance:

- Creation of a coordinating body for e-learning introduction in the Armed Forces of Ukraine;
- Creation of a scientific and methodical support body for ELS development processes;
- Creation of armed service e-learning units (centres, laboratories) on the basis of UAF higher military education establishments and military education units at higher education establishments in Ukraine.

The UAF e-learning coordinating group will manage the following tasks:

- Coordination of all ELS development measures;
- Control over the activity of all ELS structural components;
- Establishment of an ELS-related regulatory and legal framework;
- Coordination of an international ELS activity.

A *MOD e-Learning Scientific and Methodological Commission* should provide:

- Development of joint requirements to ELS curricula, programs and norms applying state education standards;
- Coordinated development of theoretical and scientific-psychological e-learning principles in the Armed Forces of Ukraine;
- Examination of all ELS components, including recommendations on the certification of specific e-learning resources.

Armed service e-learning units will be tasked to:

- Participate in drafting ELS-related regulatory and legal documents;
- Introduce e-learning in specific areas of professional training;
- Participate in the development of e-learning methodologies for expert training areas;
- Develop e-learning resources in the interest of the Armed Services;
- Participate in the creation of a Central UAF ELS E-learning Resource Repository;
- Participate in international e-learning cooperation.

Other ELS elements can be created in the Armed Forces of Ukraine (e-learning units, scientific and methodological commissions in the Armed Services and educational establishments, etc.) depending on military education and training needs.

Military Expert e-Learning Model

One of the basic concepts influencing the creation of the ELS is a concept of the e-learning model. There are different military expert e-learning models throughout the world and the selection of a particular model is influenced by many factors. Let us consider the selection of possible e-learning models for the UAF HMEE using the National Defence University of Ukraine (UNDU) as an example.

The *learning model* concept is used in this research paper with instrumental meaning to describe a scheme or teacher action plan in the implementation of the educational process. Its basis consists of the overwhelming activity of trainees, and it is organized and designed by a teacher.[19] The 'learning trajectories' concept is closely connected to the 'learning model' concept.

The learning model is characterised by:

- The description of expected results of learning (teaching orientation of the model);
- The nature of cooperation between the teacher and trainee (form of educational process organisation, correlation and character of roles of the teacher and trainee, typical methods informing the teacher's reactions to the trainee's actions, etc.);
- The nature and sequence of learning stages in the temporal dimension.

The learning model concept differs from the closer concept of the learning method in the following aspects:

- The learning description is based on the integral picture of a trainee's activity (for example, learning as a technological process, learning as a game, learning as discussion and so on);

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[19] Ryabtsev, "Prospects of e-Learning in the National Defence Academy of Ukraine."

- Both the logical-content side of learning (purpose of learning, unity of teaching and learning, etc.), and its dynamics and development in time are taken into consideration.

It should be reminded that the Law of Ukraine "On the higher education" lists e-learning as one of the forms of learning in higher education establishments together with full-time, correspondence, evening learning and internships. In addition to pure remote learning technology, e-learning can be used in other forms of military expert training and in various combinations with these forms (mixed forms of learning); in re-training and advanced training systems; and in professional (commander) training systems when separate disciplines (topics) or blocks of disciplines are taught.

The National Defence University of Ukraine considers the mixed form of learning where e-learning technologies are limited as a means for updating the learning content and methods and at the same time expanding the access of students from full-time, correspondence forms of learning and internships to UNDU educational resources, state resources and resources of other countries.[20]

The foreign experience of introducing e-learning into military expert training systems demonstrated that most difficulties in e-learning are usually related to the didactic aspects of process, teaching aspects of e-learning planning and the forming of curriculum.[21] E-learning provides for a substantial transformation of the education model. The *traditional learning model* is characterised by a number of factors including:

- The teacher is at the centre of the educational process;
- Cooperation in the educational process is limited by the number of participants;
- Competition between trainees is implicit;
- Most trainees play a passive role during lessons;
- Efficient learning involves a knowledge exchange with explanations provided by the teacher;
- Sequence of learning stages (learning trajectory in the educational space) is strictly set and restricted by time.

Unlike the traditional model, *e-learning* is characterised by the following elements:

- Trainees are at the center of educational process;
- The essence of learning is independent work aimed at the development of self-taught capacities;

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[20] Ibid.

[21] O.Yu. Permyakov, V.V. Ryabtsev, D.D. Dolyanovskiy, et al., "Modern e-Learning Technologies in Military Expert Training: Worldwide and Ukrainian Experience; Place and role of training and educational process of the National Defence Academy of Ukraine; Prospects of e-learning introduction in the Armed Forces of Ukraine," 'Distance' code: Summary report on NDR / UNDA (Kyiv, 2009), p. 108.

- Cooperation is the basis of educational activity;
- Trainees play an active role in the process;
- Trainees have the freedom of correction during the learning trajectory (forming of individual trajectory).

Thus, e-learning is prevailed by the tasks to organise independent cognitive activity of trainees, to equip them with independent skills and the ability to practically apply them.

It should be noted that the e-learning model is developed on a dual basis.

1. On the basis of consideration of psychological and teaching regularities during the mastering of knowledge by trainees, the factors and terms which promote or interfere with the achievement of planned results must be examined.

2. On the basis of possibilities of certain educational material, methods and means specific to selected learning to meet these regularities need to be looked at closely.

If these terms are not met it is impossible to successfully master an e-learning system despite addressing all material, technical and organisational aspects.

Analysis testifies that five basic models of e-learning organisation and corresponding methods for learning trajectory formation are typical for military expert training system. The *first model* is characterised by a segmented educational process where cooperation is only provided between the trainee and the educational facility without teacher assistance. This model is used when there is no rapid communication facility and trainees deal with educational material in the form of electronic or hard copies. Neither feedback with a teacher nor connection with other participants in the educational process is present. The deferred connection refers to the period of real contact between a trainee and a teacher in a session (assembly) period. The first model with its absolutely simple structure has considerable advantage compared with a traditional correspondence learning system where a trainee is not provided with an elemental program of activity management and there are no templates for verification and self-control, or possibility of receiving additional information and assistance. His/her educational activity is mostly autonomous, but cooperation with the content of the educational process largely compensates the gap between a trainee and a teacher.

The *second model* assumes the presence of a communication network between a trainee and a teacher which makes their intercommunication closer, timely and prompt. It already makes learning more differentiated creating favourable conditions to form an individual style of intellectual activity for trainees. But elements of differentiation can be brought into the learning process so as to improve its efficiency with complete success only if a teacher's efforts and capabilities with specially created electronic books are combined.[22] This situation is related to program-based materials specifically created for e-learning. In this educational model consultative and information assistance provided by a

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[22] Ibid.

teacher is related only to a fragment of educational material specified for a certain session period. It does not allow the different members of a training group to move at an individual rate. This model is currently used in correspondence learning with the application of remote educational facilities (correspondence distance learning). The session for all trainees in one group begins and ends simultaneously as does the completion of learning and issuing of certificates. An example of this e-learning model in Ukraine is correspondence distance learning which is conducted by the National State Administration Academy of the President of Ukraine.[23]

The *third model* provides for the use of group differentiation of trainee activity depending on level of development or efficiency of mastering of educational programmes. Teachers arrange trainees in groups in accordance with their final assessment results or the overall results from the dispersed inter-session assessment where content, nature and intensity of activity are differentiated in accordance with composition. Such differentiation allows trainees to address assigned cognitive tasks or problems in their own way, method and rate based on the level of preparedness and cognitive possibilities.[24]

The *fourth model* is characterised by collective organisation. This model provides both the availability of connection between a teacher and a trainee and the existence of prompt connection between trainees. Thus, the circle of consultants is enlarged and discussions, disagreements, and joint project work are all possible. The activity of trainees is additionally stimulated and this is connected to the element of competition introduced by this model as well as by the availability of additional grading which is undertaken by group members. Grading by fellow students is often more significant for trainees than the formal grades given by teachers. The functions of the teacher are broadened by this model. In addition to prompt reaction to questions, mistakes and complications faced by trainees, he/she should differentiate group members by considering their success in mastering the learning program, particularly if the program includes possibilities for the multi-level differentiation of learning. The teacher is bestowed with basic initiator and organiser of dialogue functions (in terms of a moderator's internet-society-functions in discussion).

The *fifth model* provides a higher level of differentiation using the diagnostic and asynchronous model of a distant educational process with vertical and horizontal feedback. It preserves all components from the previous model but groups are formed on the basis of previous training levels, skills and mental activity as opposed to results. This model requires additional elements, including:

- Diagnostic vehicle to detect the individual differences of trainees;
- Diagnostic means allowing for the accurate and prompt examination of accepted university entrants;

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[23] I.I. Zhuravleva, "Model of e-Learning Organization: Lessons Learned and Prospects," *Educational Technology & Society* 8:3 (2005): 350–355.

[24] Ryabtsev, "Prospects of e-Learning in the National Defence Academy of Ukraine."

- Psychologists who should make necessary conclusions on diagnostic results and give recommendations to the teacher on group arrangements or desirable specifics;
- Teachers who should draft an optional system to provide assistance which is different in content, nature and scope without making substantial changes to the learning program.

The higher level of e-learning is achieved when the level of a trainee's actual capabilities and position in a certain educational group is determined according to preliminary diagnostic results and the individual training system is developed according to individual features and creative potential. This model is called the *personality-oriented learning model*. It gives the best results, but it requires a complex development of outgoing educational materials and the sharp reduction of the number of trainees (a teacher taking only 3-4 trainees).

Thus, the above described e-learning models form a certain "from the simple to the difficult" range in the context of the development of communication, and didactic and methodical ELS descriptions. Thus, the fifth model currently remains a mostly theoretical one and requires considerable volumes of scientific and practical research to be effective.

These models support the analysis of the learning process from different angles and complement the selection of each model and corresponding learning trajectory to satisfy the major aims and tasks for each type of learning.

The abovementioned description of basic e-learning models shows that the selection of e-learning models in HMEE depends on four basic groups of factors.[25]

1. *Target factors:* present educational audience and aims of learning for each of its categories.
2. *Technological factors:* availability of speed communications (broadband internet connection, video conference communication, etc.).
3. *Didactic factors:* level of didactic organisation of available e-learning resources.
4. *Methodological factors:* level of methodological readiness of all categories of academic workers in an e-learning system.

It is on this basis that we can analyse how each factor is supported by the Ukrainian National Defence's e-learning system.

Target factors. Research of potential target audience for e-learning in the National Defence University of Ukraine allows one to make a conclusion about such possible categories[26] and targets for e-learning applications in the educational process according to the following categories:

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[25] Ibid.

[26] Romanenko, "Prospects of e-Learning Introduction in UAF Combat Training System."

1. University students undertaking remote learning (correspondence distance learning) – with independent learning and teacher-supervised learning of educational disciplines in an inter-assembly period;

2. University students undertaking full-time learning – independent work and separate lessons or undertaking separate disciplines optionally;

3. Students undertaking retraining and advanced training courses and higher academic courses – in the process of learning or using e-learning systems or technologies during separate lessons or undertaking separate disciplines (symbiosis of aims from the first and the second categories);

4. Military servicemen involved in a professional (commander) training system at the university – similar to students undertaking retraining and advanced training courses;

5. University entrants – during independent passing of preparatory courses and competitive pre-selection;

6. Students from higher educational establishments who undertake reserve officer training program – similar to full-time students;

7. Servicemen retiring from the Armed Forces of Ukraine – in the process of retraining as retired servicemen in a social rehabilitation program (independently or under supervision);

8. Foreigners – in accordance with international agreements and depending on the selected form of learning.

Technological factors. Analysis of UNDU technical and telecommunication infrastructure which can be involved in the e-learning system, possible access channels to academic resources for e-learning participants, and requirements for information confidentiality to determine access to e-learning resources (see Figure 3).

The basic access channels of e-learning participants to resources include the university computer network, UAF information and telecommunication network (ITN) and the Internet. Additional (reserve) channels used for the distribution of e-learning resources are 'hard' copies (CD/DVDs). Thus, it is necessary to have a corresponding server to establish access through one of the transferred networks and to periodically synchronise these servers so as to maintain learning statistics independently from selected connection option. An invariable element of UNDU e-learning technical infrastructure should be an e-learning resource test server intended to test developed (adapted) e-learning courses.

Didactic factors. Unfortunately, we must admit that the level of development of didactic aspects in military expert e-learning in the Armed Forces of Ukraine is very low. The rich experience accumulated by foreign colleagues cannot be blindly transferred to national realities. The same situation exists with e-learning civil institutions. There are certain differences between the civil and military audiences of e-learning systems. The understanding of these differences and their nature allows one to make recommendations for the pedagogi-

Student beyond UNDU
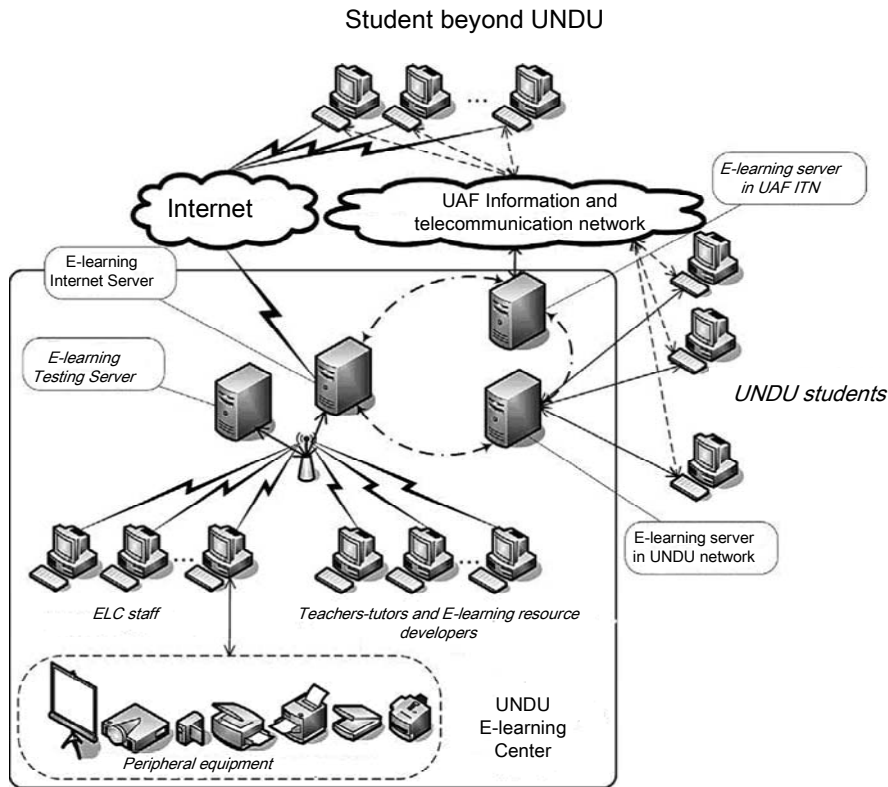
Figure 3: Organisational Access Scheme to UNDU e-Learning Resources.

cal technologies which are most adequate for each educational audience and to set directions for the improvement of e-learning tools. The results of comparative analysis of civil and military (based on UNDU experience) e-learning audiences are divided into four groups shown in Table 1.

The positive effects from the e-learning technologies can be jeopardised without the consideration of differences in general approaches to the organisation of training, motivation of trainees and trainers, technological basis and so on.

E-learning models, from the first to the third model, have been considered in the didactic sense for application into the military education system, and the implementation of the fourth and the fifth models is yet to occur. This situation can only be resolved through the detailed theoretical and practical research of the didactic aspects of military expert e-learning. Of particular importance is the creation of the original 'Lessons Learned' subsystem for ELS in the Armed Forces of Ukraine and in every HMEE. For example, basic tasks at the UNDU E-learning Centre include:

Table 1: Comparative Analysis of Civil and Military e-Learning Audiences.

#	Factors	Civil e-learning audience	Military e-learning audience
1.	**Organizational**		
a)	Realisation of 'any time' principle	• rationed business hours, possibility to manage spare time • educational time is guaranteed when lessons are held in the system of advanced training	• business hours, as a rule, are not rationed; they are often accompanied by an increased psycho-physiological loading which complicates lessons in spare time • the time for lessons is declared in documents, but practically it is provided extremely rarely
b)	Realisation of 'anywhere' principle	• free access to the channels of distribution of educational content	• access to the Internet and UAF ITN in business hours is strictly limited
2.	**Technological**		
a)	Access to educational content*	• Internet • corporate networks • local networks of institutions • CD/DVD	• Internet • UAF ITN • local networks of commanding bodies (institutions) • CD/DVD
b)	Level of IT-infrastructure development	• high level of IT-infrastructure development • middle rates of introduction of modern IT technologies	• comparatively low level of IT-infrastructure development • low rates of introduction of modern IT technologies
c)	Availability of speed access channels to resources	• high-speed access channels	• relatively low-speed access channels
3.	**Information (content)**		
a)	Content of educational materials	• various content (text, graphics, multimedia)	• considerable arrays of text documents used in learning make visualisation more difficult (manuals, guidance, orders, directives, etc.)

b)	Limits on educational content	• copyrights	• most educational materials have limited access and are classified at the secret or restricted levels • copyrights
4.	**Psychological (cognitive)**		
a)	Level of motivation of e-learning audience	• high level of motivation through understanding the influence of a good educational level for a further career	• low level of motivation through initial state of the system of UAF servicemen career development
b)	Level of motivation of e-learning teachers	• high level of motivation (personal financial interest)	• general conservatism of the military environment results in certain scepticism (for first timers) towards e-learning
c)	Individual organisation	• comparatively low level of individual organisation	• high level of individual organisation and responsibility (under condition of kind motivation)
d)	Ability to learn	• middle level of ability to learn due to limited life and career experience	• high level of ability to learn (officer is taught through the whole period of service: every new position requires to master new knowledge and skills)
e)	Theoretical/practical orientation in mastering material	• mostly theoretical orientation in mastering educational material	• orientation to contextual information, abstractions are hardly perceived
f)	Orientation to perception of certain content	• better perception of educational material rich for multimedia and interactive components	• special emphasis on perception of educational information is made in text (pictures are used as explanation elements), weak perception of sound and video content
g)	Openness to modern learning technologies	• high level of trust in innovative learning technologies	• low level of trust in 'social' learning technologies in light of the e-learning 2.0 concept

* Availability of the first and the second access is very limited for a military audience.

- Research activities in the application of e-learning in Ukraine's military training program;
- Approbation and introduction of the newest methodologies in e-learning-based educational processes using e-learning technologies;
- Analysis and sharing of experience.

Methodological factors. The organisation and implementation of academic processes using e-learning technologies is, unfortunately, poorly developed in the Armed Forces of Ukraine on the whole and in the Ukrainian National Defence University in particular. E-learning methodical aspects are understudied for objective reasons. There is a worthwhile foreign experiment studying the combination of e-learning with simulation facilities, the creation of a virtual educational environment, use of social services, and development of mobile learning. Examination and experimental verification of these and other methodologies should become a basis for further research in e-learning in the Armed Forces of Ukraine.

Analysis highlights that the influence of technological, didactic and methodological factors in terms of the e-learning model selected by the Ukrainian National Defence University differs according to the various categories of its target audience. The results of this analysis are detailed in Table 2 and the differing degrees of intensity are represented by the following scale:

0 – optional condition

1 – desirable, but not required condition

2 – required condition.

Connections with teachers and within a group often reflect the availability of rapid communications (e-mail, TV-conference, chat, etc.). The necessity of these forms of communications during e-learning is determined by the availability of hardware and software and by the pedagogical learning aims for a specific target audience.

When examining the possibility of forming an individual learning trajectory, it becomes clear that its realisation is not expedient for the separate categories of a target audience, but on occasion is not possible within the existing organisation of the academic process in UNDU.

As stated above, the distribution of e-learning resources through CD/DVDs is a reserve method that is not detailed in this table.

The realisation of methodological support to e-learning at UNDU was examined in the context of the realisation of existing, well-developed methodologies in distant education processes.

Table 2: Comparative Analysis of Factors which Influence the Selection of an
e-Learning Model at UNDU for Different Categories of a Target Audience.

#	Category of target audience	Possible access channels to UNDU resources*			Required didactic component			Necessary methodological support	
		UNDU corporate network	UAF ITN	Internet	Connection with a trainer	Connection within a group	Individual learning trajectory	Available e-learning methods	New e-learning methods
1	Students of distance (correspondence-distance) learning	0	1	1	1	1	1	2	1
2	Students of full-time learning	2	1	1	0	0	0	2	1
3	Students at retraining and advanced training courses	0	1	1	1	1	1	2	1
4	Servicemen engaged in professional (commander) training	2	0	0	0	0	0	2	0
5	University entrants	0	1	1	1	0	1	2	0
6	Students from HEE	0	0	2	2	1	0	2	1
7	Retiring servicemen	0	1	1	1	0	1	2	0
8	Citizens of foreign states	0	0	1	2	1	1	2	1

* At least one of the access channels should be provided.

The following aspects should be noted when considering factors which influence the selection of the e-learning model in Table 1. E-learning in the Ukrainian National Defence University can be organised using different models (mainly the first and second one). For example, students in the fourth and the fifth categories can use the first model. 1-3 and 6-8 categories can use the first or the second e-learning models depending on educational aims. The use of the first model will be impractical only for the eighth category. The second e-learning model will be generic for this category. At the same time, certain principles are founded in the third and fourth e-learning model, for example in the area of foreign language training. A list of categories for target audiences for e-learning at UNDU and corresponding models of e-learning are detailed in Table 3.

Table 3: Models of e-Learning Organisation for Separate Categories of Target
Audience for e-Learning in UNDU.

#	Category of target audience	Model of e-learning organization
1.	Students of distance (correspondence-distance) learning	1, 2 (3, 4)
2.	Students of full-time learning	1, 2 (3, 4)
3.	Students at retraining and advanced training courses	1, 2 (4)
4.	Servicemen engaged in professional (commander) training	1
5.	University entrants	1
6.	Students of HEE of Ukraine	1, 2
7.	Retiring servicemen	1, 2
8.	Citizens of foreign states	2 (3)

In summary, it should be noted that the selection of an e-learning model in HMEE is not conclusive. On the contrary, it is a dynamic task which should be determined on a case-to-case basis (reflecting new e-learning courses, new categories of trainees, etc).

E-Learning in the National Defence Academy of Ukraine

The establishment of the UNDA E-leaning Center (ELC) in 2007 reflected the exhaustive efforts undertaken by the academy's research experts and the application of education technologies. As the first and the only specific e-learning unit in the Armed Forces of Ukraine, the ELC is the primary institution responsible for addressing the range of problems related to e-learning introduction and application in training in the Armed Forces. The future e-learning system is affected by regulatory, legal, logistic and personnel support problems.

During 'distance' research work, the ELC drafted basic documents as the basis for the regulatory and legal framework in support of e-learning in the Armed Forces of Ukraine. These include the draft "Concept of E-learning in the Armed Forces of Ukraine" and "Statement on E-learning in the Ukrainian National Defence University."[27]

The creation (adaptation) of e-learning resources belongs to the key ELC tasks and, accordingly, the e-learning centre developed a series of electronic courses including:

- "Building of the security sector"
- "Accountability of the special services: legal regulations, experience and recommendations"
- "European and Euro-Atlantic integration of Ukraine"

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[27] Permyakov, Ryabtsev, Dolyanovskiy, et. al, "Modern e-Learning Technologies in Military Expert Training: Worldwide and Ukrainian Experience."

- "Civil-military relations in the security sector."

The ELC developed a course entitled "European and Euro-Atlantic integration of Ukraine" which was successfully adapted by the UNDA International Relations Department in March 2009. An "International humanitarian organisations in peacekeeping operations" course is currently being developed.

The professionalism of the ELC staff is being constantly improved. For example, an educational course to develop e-learning resources for the ELC staff was conducted under the sponsorship of "*Alion Science and Technology,*" a US company whose representatives work for the Academy on a contractual basis. The development of a pilot version of the "basics of military topography under NATO standards" e-learning course developed from this project. This course can be taken by all UAF servicemen who are deployed on peace-keeping operations and studying NATO standards. The English-language version of this course can be used as additional material by the foreign language department at MSOC.

An important ELC function is the scientific and methodological activity which supports the e-learning system of training, re-training and advanced training of security sector experts. For example, "Modern information technologies in security and defence" (est. 2008) is a theoretical and practical magazine published by ELC. Security sector experts from Ukraine and other countries including Belarus, Canada, Germany, the US, and Switzerland contribute to the publication of the magazine. The magazine is published with the support of the *Geneva Centre for the Democratic Control of Armed Forces* (DCAF).

Another project is the "Library of Democracy" electronic portal which was cooperatively launched by ELC and DCAF in 2008.

Allied Command Transformation representatives commenced consultations on ELC in-volvement in drafting e-learning courses in the interests of the Alliance. The academy's ef-forts in introducing e-learning to the military expert training system was acknowledged by foreign partners at an international conference of the PfP Consortium of Defence Acad-emies and Security Institutes Working group for e-learning held from 12–15 May 2009. The conference focused on the modern experience of NATO members and PfP program par-ticipants in applying e-learning in training. 36 foreign experts from 17 countries participated in the conference. A special Ukrainian 'national' day was held in the framework of the con-ference so as to familiarise the widest number of UAF experts with the prospects of apply-ing e-learning in the military education system and troop training. The experience of armed forces from different countries and NATO educational establishments was presented to representatives from the Defence Ministry of Ukraine, General Staff of the Armed Forces of Ukraine, and MoD higher military educational establishments on 15 May 2009. The invitees had also the opportunity to become familiar with national experiences in this area including the Academy's developments.

However, regardless of the positive results achieved, the basic ELC task is to organise e-learning in the UNDA (in the nearest prospect – UNDU). The ELC's initial emphasis is on the introduction of e-learning technologies into the system of course training (officer re-training, advanced training courses, higher academic courses). The analysis of training

programs in advanced training shows the possibility of a transition of 15% up to 80% of lessons into e-learning, thus reducing expenses for officer assignment. Peacekeeping courses can be generally transferred to e-learning up to 95%. Traditional learning methods will continue only for lessons on closed subjects and reporting lessons (tests, examinations, etc.).

Ukraine also intends to extend its correspondence learning gradually converting it into correspondence distance learning. The establishment of a Master's degree education program in correspondence distance learning at the National Academy of State Administration by the President of Ukraine reflects this development.[28] A model combining full-time learning and e-learning measures (*blended learning*) forms the basis of this educational process. The National Academy and UNDU incorporate the following features:

- They are both state-owned (most of the e-learning centres in Ukraine work on a commercial basis);

- They provide only a Master's degree level of education on the basis of previous higher education;

- Leading managing staff with certain service and life experience are catered for in both establishments (the age and social composition of educational audience is a substantial factor for e-learning);

- Correspondence learning takes place against the background of a considerable service workload;

- Course training systems are being conducted.

The history of e-learning in UNDA is very short. It should be noted that there are a numerous unresolved problems regardless of the substantial achievements made in the initial development of this process. These problems can be addressed only through detailed work by a wide number of experts in different profile areas (administrators, methodologists, teachers, IT experts, etc.). The considerable potential of e-learning aimed at the improvement of training at the National Defence University of Ukraine is sufficient motivation to further focus efforts in this area.

Finally, it should be noted that this process requires, firstly, a revision of approaches to the UAF's personnel management system. The improvement of only traditional models and methods of personnel management and military education does not support necessary progress in this area as a whole.

The large-scale application of new technologies, the creation of effective e-learning, and the introduction of the competence management system as a key element of the future knowledge management system will effectively support the MOD's newly created system of personnel management which incorporates:

- The management of personnel careers;

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[28] Zhuravleva, "Model of e-Learning Organization: Lessons Learned and Prospects."

- The management of professional training;
- The MoD's social support system; and
- Support structures for personnel re-entering civilian life.[29]

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[29] *Personnel Policy Concept in the Armed Forces of Ukraine.*

Combat Training: Does Money Make It Happy?

Vadim Vlasenko

Achievements

Years of actual inactivity in military servicemen combat training were replaced by notable changes in the Ukrainian Armed Forces in the 1990s. Acknowledgment of the fact that it is impossible to ensure full-fledged training of military units with limited resources led to a focusing of efforts on the training of Joint Rapid Reaction Forces (JRRF), and units which conduct combat duty as well as those deployed to peacekeeping operations.

It should be noted that the latter contributed to the improvement of combat training. The decision to deploy Ukrainian units to the world's 'hot spots' forced the Armed Forces to urgently find resources and provide a minimum level of training. The experience gained in peacekeeping operations 'refreshed' the training process which was supplemented by such elements of combat training as counteraction to illegal armed formations, counteraction to mine danger, escort of convoys and other aspects of peacekeeping operations. In addition, the deployment of a helicopter squadron as part of the peacekeeping contingent in Liberia facilitated the maintenance of the Land Forces Army Aviation and the flying time of personnel needed to improve professional skills. For example, in the past year, the flying time of a helicopter squadron deployed to an African country was approximately equal to the sum of hours spent by crews in the skies of Ukraine.

Numerous changes were made in the Ukrainian army including a reduction of active military service to one year together with a simultaneous increase in the number of contract servicemen. In fact, it is impossible to provide peacemaking experience to conscript soldiers and contract servicemen who are combined in one platoon or company, particularly when basic training functions are performed by recent lieutenant graduates.

New combat training programs are conducted over 10 months, and two seasonal maintenances of military equipment and one preparatory interval per year were introduced. A differentiated approach to organise training depending on structural organisation was also established through a conditional division into units manned with contract servicemen for over 50%, and units with a lower number of contract servicemen. The orientation of combat training also changed. For instance, the training of sections and platoons in Joint Rapid Reaction Forces units is identical for all units, but cohesion of companies and battalions is achieved with consideration of their real combat functions.

Educational facilities have been upgraded. The tests of a new set of shooting marks equipment should be completed this year; this equipment does not require great efforts and the covering of fields for battalion-level tactical combat firing exercises takes only five hours. In addition, the development of a probable enemy model is computer-managed. A training centre in Desna and the Land Forces Defence Institute in Lviv will be equipped with the first Ukrainian simulators of the T-64B tank (three units) and BMP-2 infantry fighting vehicles (two units) designed in accordance with the highest world standards to accurately recreate conditions of use of combat vehicles in a modern battle.

"You Shall not Make for Yourself a Graven Image"

In this context, it should be noted that joint exercises with foreign military units are the only option to train Ukraine's servicemen. This topic is inexhaustible and it is undeniable that this practice brings dual benefits. Above all, staff exercises are very important as they offer the possibility to learn about NATO staff procedures, approaches to training and combat actions or operations, peacekeeping tasks as well as aspects of computer simulation of troop (forces) deployments and other IT-technologies. They are useful because Ukrainian units have to operate under procedures of peacekeeping operations which are based on the approaches of Western armed forces. It is clear that the West will not adapt to our standards. Therefore, this training is worth welcoming and developing.

When international exercises are held with the participation of tactical level units, preparation and implementation expenses do not compare with the benefits from the joint actions of units and mutual intercourse between soldiers and officers from their composition. In fact, it is not a secret that command and control bodies at all levels spend a great deal of time on the procedures of the arrival of foreign military units to Ukraine commencing with the adoption of a corresponding law by the Verkhovna Rada and finishing with the placing of guards for foreign guests in areas of firing grounds and training centres.

As a result, the actions of a few platoons or companies from different foreign countries are very influential, while hundreds of Ukrainian platoons and companies are limited to the episodic individual combat training of soldiers who do not believe in the cohesion of units due to a lack of material and technical resources. Thus, a sergeant or officer from Ukrainian units will not be able to simply apply the experience received during international exercises, because a question of amendments to basic documents which regulate the combat training and deployment of Ukraine's units is not included in their responsibilities. This conclusion is in no way far-fetched.

While there are differences, they are minimal at the level of tactics of actions of individual soldiers and small units. It seems, therefore, that in this case "the game is not worth the candle."

Looking deeper into the issue of combat training of Ukrainian units and formations, there is insufficient financing at all levels. No country has succeeded in establishing an efficient army by saving on its combat training, particularly in the training of pilots or seamen who are put to sea only episodically because of a lack of fuel.

Unfortunately, most of the Ukrainian army's commanders who worked during the most difficult period of the 1990s, in terms of the organisation and implementation of combat training, have passed away. They were not able to experience the intensity of training on firing and training grounds, or firing from BMP-2, company or battalion-level tactical exercises with day and night combat firing and so on (not to mention regiment-brigade level exercises). As a result, commanders' psychology has radically changed, whereby a personal lack of ability does not support training on the principle "do like I do." The interruption of personnel from combat training is another important problem. JRRF combat units hold training for only six days per month. Except for weekends, time is spent undertaking duties in the area of equipment maintenance and other similar tasks.

The so-called 'driver's day' is held in the army on a Monday when the use of equipment is brought to zero. Departure to a firing ground and combat training activities with the use of military equipment is not the issue. This deducts four more valuable days of combat training per month and around 40 days per academic year. When "weeks of troops service," "decades of manuals" and other measures of doubtful advantage are added it becomes clear that troops in general engage in combat training as a leftover principle.

In the corporate world, it is difficult to imagine companies wasting 30-50 % of their business hours. However, it appears that we can waste this time in the army. Soldiers typically spend their time cleaning military units. I had the opportunity to observe two persons cleaning up one of the Western military bases over a month. One worked on a lawnmower and sprinkler in turn, and the other collected and took out domestic waste. Both were civilian workers from a commercial company which served the military base. Four years have passed since the new leadership of the Defence Ministry proclaimed a course to reform such functions as supply and maintenance, to hand them over to civil structures. However, as of today, unfortunately, things are still where they started.

Discussion is often focused on areas which are introduced as a result of the reduction of units, and other infrastructure which is considered to be surplus for the military organisation. But commanders believe that it is not enough to have simply a place for corresponding educational and material facilities. For example, the last 100-metre shooting gallery located in the Kyiv garrison for the elite guard brigade was closed and is now used to hold firing exercises for both soldiers which guard important objects and the majority of personnel from local military units. The educational-material facility was used to construct parking spaces for Defence's leadership officials.

A similar situation was also observed in Ivano-Frankivsk and in other garrisons, where the servicemen of local units do not have facilities to practice their firing skills. The optimisation of training grounds for Land Forces is now under consideration. All aspects of the brigade and regiment training grounds including its corresponding infrastructure, will cease to exist and will become ordinary military firing grounds and firing places with renewed capabilities. Units will be forced to move from the places of permanent dislocation to find combat training tasks in the remained grounds and educational centres. But who deter-

mined the amount of money required for battalions and companies to make these trips which should be taken on a monthly basis?

Where Is the Way out?

A situation will change for the better only when the priority of combat training is assured, and when the commander of a company, battalion and brigade is assessed, encouraged and promoted in service in accordance with results of combat training of his subordinates. For this purpose, it is necessary to create terms to deprive commanders from spending time welcoming and farewelling the numerous inspectors, registering papers and searching for sponsors to resolve internal problems.

Instead, it would be useful to extend their authority in the area of combat training programmes as well as to abolish numerous limitations commencing with the existing limits on the use of live ammunition or vehicle capacities and finishing with limitations associated with compliance with safety measures.

However, even in conditions of limited resources and the under-manning of units, there is an option to support greater combat training. Let us assume that one or two battalions in the mechanised brigade can be fully manned at the beginning of an academic year even using other units, and by allocating all resources (POL, finances, etc.) to their combat training. At the same time, personnel from remaining units could undertake the functions of service on duty, maintenance of equipment, economic activities, organisation of 'window dressings,' and training of individual experts at different courses and assemblies. As a result, we would have an efficient battalion ready to execute any task after three to four months of intensive training, for example, or to deploy on peacekeeping operations with the shortest possible delay. Otherwise, as a result of wasting limited resources we will produce three "slightly trained and equipped" battalions by the end of the year which are hardly capable of performing assigned tasks without additional training.

To address the serious turnover of contract servicemen in combat units, servicemen should be given substantial work instead of maintenance duties. In doing so, the actual results of combat training as opposed to "window dressing" for a Commander-in-Chief might be realised.

Combat Training:
"Made in the USSR"

Serhiy Polyakov

Independent American experts believe that the military education and training management system in Ukraine still resembles a system with Soviet-era principles which, although satisfying the requirements of the Soviet Union does not meet the requirements of the present time.

The participation of Ukraine's troops in coalition operations in Iraq and Kosovo provided impetus to reflections on combat training. Ukraine's combat training system was strengthened by attempts to increase interoperability with units from other countries in the framework of Participation for Peace (PfP) program and during participation in multinational operations. But too many subjective and objective factors influence the quality of troop training today. A keyword is intensification, which reflects the number of activities, percentage and flying time ahead of quality of training and, in the end, prevails in the assessment of actual troop readiness to perform assigned tasks.

The era of supporting the army with an infinite budget is over. The 21st century brought new challenges to security, as well as new methods and forms of engagement of forces, and training approaches. The leading countries of the world learned to balance budgets with defence needs, and needs with the available capabilities of the country, to make sound policy of resource supply. In addition, collective political will, democratic civil control, joint combat capabilities and experience are the primordial resources in supporting and maintaining long-term security.

Let us examine the contradictions in the organisation of troops training. Firstly, it is highly centralised. The commanders of units (formations) lack flexibility in implementing the necessary activities. The training management process is characterised by issuing orders from above, which specifically determine activities, tasks and number of hours planned for every activity. The organization of learning and training on the basis of principle for compliance with terms and conditions in the framework of the academic year, as opposed to a focus on the standards of preparedness has become the norm. Secondly, resources are also controlled on a centralised basis, and they are not sufficiently allocated for the achievement of training objectives specified in the State program of development of the Armed Forces of Ukraine for 2006-11. Thirdly, the full implementation of a training program unified for units of all armed services is considered sufficient for units to be ready for deployment. However,

different bodies have different tasks, and personnel, especially in conscript-manned units often change. Therefore, to be 'always' ready under such circumstances is impossible in principle. There are requirements in training under the list of fixed tasks, and the renewed system of combat readiness assessment and reporting supports the development of educational tasks with regard to the level of skills for a set of tasks, and flexibly determines the list of forces and capabilities required to form and generate troops to perform tasks in local conflicts.

An important aspect is the manning of units with personnel who already have basic military training. Commanders should take them to the level of readiness required to perform tasks for two-three months even on the condition of timely manning units with recruits. Rapid reaction units should not conduct "courses of a young soldier" on this basis. Basic military training without exception is needed at educational centres. A tactical training environment does not cover all the difficult aspects of a modern operational situation in settlements or cities. Modern soldiers and units on the whole should take critical decisions and operate in fleeting terms, that is why it is necessary to create a realistic picture of combat actions in educational centres, which will represent the potential scenarios of event development, including the conditions of civilians, the mass media, political groups, and international and non-governmental organisations in the area of combat actions. An important role in the creation of such an environment is played by forces of enemy identification, well-trained players, and the coordinated actions of professional mediators.

> *...* System of military education and training management in Ukraine remains mostly the Soviet-type system which rather well satisfied the requirements of Soviet Union and has a lot of experienced and hard-working people, but it already does not meet requirements of the present time. It is still unable to create interoperable units in the army. Such units as Joint Rapid Reaction Forces are already able to operate within NATO forces, but their interoperability is attained rather through operational reorganisation and retraining, than an existing training control system. As a result, their potential for deployment is far below what it should be in such conditions. In addition, the existing centralised system is unable to satisfy the needs of the professional army with a professional sergeant corps.[1]

A negative factor in the organisation of troop training is the absence of a sufficient number of virtual simulator facilities that influences the flexibility of training programs and limits the capabilities of additional training in conditions of limited resources. Although the Armed Forces of Ukraine have some trainers to work out a theory and practice of firing/ combat firing, they have become antique, are rarely used or included in training programmes. This issue is not currently critical because military equipment of all kinds is used in training. However, supplies of live ammunitions will diminish in the future, and simulators should come into their place.

An important aspect is also the generalisation and distribution of experience that unfortunately, does not meet the needs of the Armed Forces. There is no evidence that so-

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[1] UAF education and combat training system research materials, made by an independent US research group in Autumn 2007.

called reports are assessed by units or educational establishments following large-scale exercises or participation in missions.

> ...Ukrainian leadership should, without delay, introduce the decentralising order of educational and training management oriented to standards that would accelerate reform of the training system. Those rates and volumes of reforms, which we currently have, will not allow the Armed Forces of Ukraine to create future primary operational potential in the planned term until 2011. It is possible to provide achievement of strategic aims, outlined in the White Book only on the condition of a radical walking away from the Soviet system.[2]

The UAF Land Forces are aware that the Soviet model of combat training cannot be applied to contemporary conditions, particularly as the army shifts to a professional basis. Substantial changes are being made to operational and tactical doctrine, and the organisational structure of management bodies. New training instruments are being introduced, such as simulation modelling, laser firing systems and target hitting simulation, enabling a reformed training system. This new system is based on a deep analysis of principles and experience from two decades of participation in peacekeeping operations, and is modeled on the training methods of the world's leading countries. Results are not expected instantly. They must take into account the objective and subjective factors which accompany transformation processes in the Armed Forces of Ukraine as a whole. The prognosis for the coming years should be included in the training reform plans that are expected to be completed this year.

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[2] From UAF education and combat training system research materials made by an independent US research group in Autumn 2007.

Section 2
Military Intelligence of Ukraine: Establishment and Development

Vasyl Kuschov and Ihor Khraban

Drastic changes in the global geopolitical situation at the end of the 20th century and the beginning of the 21st century have not been fully realised by the world community; however, certain realities can be highlighted. The collapse of the bipolar system of international relations did not bring long-awaited security and stability to our planet. Although many political scientists and experts believe that the threat of large-scale war with the use of weapons of mass destruction between the world's major powers has passed, new threats and challenges to national and international security emerged after the collapse of the Soviet Union and disbandment of the Warsaw Treaty Organisation. Religious and ethnic conflicts became a common phenomenon not only for countries from the former socialistic camp, but almost in all regions of the world where stability and peace had more or less been successfully provided by membership to an area of influence of one of the two superpowers. International terrorism has assumed new and more threatening forms in recent years and environmental problems have been occurring more frequently and acquiring an intergovernmental scale. This has accompanied the proliferation of weapons of mass destruction, rapid increases in population, the worsening of international crime particularly in the area of human and drug trafficking, and piracy which has been activated in the Indian Ocean. These threats can be attributed to the destruction of the old system of international relations and they have provided impetus for the world community to support the establishment of a new international order. However, as it is said in popular wisdom – it is easier to pull down than to build something new, especially at the intergovernmental level.

New threats to international security in light of present geopolitical realities directly impact on the national security of every state. However, a situation becomes sharper when a newly-established state, such as Ukraine, does not have the experience of state administration and has existed as a fragment of a superpower; it tries to be a regional leader and occupies a very important geopolitical position among states – representatives of different directions of development of the world civilisation.

It should be reminded that one of the basic priorities of national interests in international relations is "strategic and geopolitical interests in the national security of Ukraine and pro-

tection of its political independence."[1] National security should be guaranteed by the system of governmental bodies (legislative, executive and judicial powers), non-governmental organisations, and, most importantly, by every citizen of the state. Threats to existence of the state are different. However, the basic direction in security and defence is one and only – "defence of state sovereignty, territorial integrity and inviolability of state boundaries, prevention of interference with internal affairs of Ukraine."[2]

The direct support of national interests in terms of security and defence is provided by the state's military organisation. The Armed Forces of Ukraine are the basic element of this system. Undoubtedly, one of the most effective bodies of the Armed Forces is its military intelligence which is in a permanent state of combat readiness. As Lieutenant-General V. Hvozd, the Head of the Ministry of Defence's (MoD) Defence Intelligence Department (DID), states "…we can have a numerous, well-trained and equipped army, but if strategic military intelligence does not exist or operate, then efficiency of the army goes down to a microscopic index. Thus, military intelligence special purpose groups manned with 10-12 persons are able to perform tasks at the operational-tactical and even operational-strategic level. And intelligence data about an enemy's strategic plans and operational situation can radically change the development of conflict."[3]

A legal framework for the activity of military intelligence is presented by the Constitution of Ukraine, the laws of Ukraine, as well as other corresponding regulations and legal acts. Article 17 of the Constitution provides initial provisions on the national security of Ukraine.[4] The legal principles of activity of the MoD intelligence body are specified in the laws: "On the defence of Ukraine" (1991), "On the Armed Forces of Ukraine" (1991), "On the search activities" (1992), "On the organisational and legal grounds for fighting against organised crime" (1993), "On state secrets" (1994), "On amendments to some legal acts of Ukraine related to adoption of the Law of Ukraine "On the intelligence bodies of Ukraine" (2002), "On the counteraction to terrorism" (2003), "On the basics of the national security of Ukraine" (2003), "On the international agreements of Ukraine" (2004), "On the amendments to some legal acts of Ukraine related to activity of intelligence bodies of Ukraine" (2005), as well as in the Strategy of National Security (2007), and other regulatory and legal documents.

A basic law for military intelligence activity is the Law of Ukraine "On the intelligence bodies of Ukraine" (2001), which was drafted in accordance with the basic principles of the

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[1]   Decree of the Verkhovna Rada of Ukraine "On the Basic Areas in Foreign Policy of Ukraine," #3360-XII, 2 July 1993, *Bulletin of the Verkhovna Rada* 137 (1993), p. 935.

[2]   The Law of Ukraine "On the Basics of the National Security of Ukraine," *Official Bulletin of Ukraine* 29 (2003), p. 40.

[3]   V. Hvozd, "MoD Defence Intelligence Department: There Are No Friends in Intelligence," online resource (1993); available online at www.unian.net/ukr/news/news-271056.html.

[4]   *The Constitution of Ukraine*: Current Legislation with Amendments and Supplements, dated 1 August 2008 (equivalent to the official text), ed. A.V. Palivoda (Kyiv, 2008), p. 6. (Codes of Ukraine).

vital activity of the democratic state. According to Article 3 of the Law, this activity is based in compliance with such principles as:

- Legality
- Respect and observance of rights and freedoms of a man and citizen
- Continuity
- Combination of public and secret methods and facilities within provisions of the law
- Differentiation of areas of activity of intelligence bodies, cooperation and coordination of their activity
- Independence and operation ability in the presentation of intelligence information
- No affiliation to any party
- Control and accountability to corresponding governmental authorities within the provisions of the law.[5]

Considering these and other regulatory and legal documents which determine the activity of military intelligence, we believe that it is necessary to take into account that the conduct of military intelligence is not only an institutional function within the Ministry of Defence of Ukraine, but above all a governmental function. This is stated in the Law of Ukraine "On the intelligence bodies of Ukraine." According to Article 7, "the President of Ukraine performs general administration of intelligence bodies of Ukraine in accordance with the Constitution of Ukraine and this Law. The leaders of central executive bodies, where intelligence bodies are attached to, perform administration of the subordinate intelligence bodies within the limits of authorities and competence provided by the law and provisions on corresponding intelligence bodies, ratified by the President of Ukraine, and create necessary conditions for their functioning."[6]

This Law also gives interpretation of the term 'intelligence activity' which is determined as "activity realised through the special means and methods so as to provide legally determined public authorities with intelligence information, assistance to realisation and protection of national interests, and counteraction to external threats to Ukraine's national security outside Ukraine." Thus, military intelligence as one of the elements of the intelligence community is tasked to "collect, analyse and provide legally determined public authorities with intelligence information" in specific areas of vital activity of the state, in particular "in defence, military-political, military-technical, military-economic, information and ecological areas."[7]

In addition, the MoD's Intelligence body has the following tasks:

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[5] The Law of Ukraine "On the Intelligence Bodies of Ukraine," *The Voice of Ukraine* 69, 18 April 2001, p. 4.

[6] Ibid.

[7] Ibid.

- To conduct special activities and measures aimed at the strengthening of defence capacity, economic and scientific-technical development, protection and guarding of the state boundary;

- To participate in combating terrorism, international organised crime, drug trafficking, trafficking of arms and arms manufacturing technology, and illegal migration, applying procedures provided by the law;

- To take measures of counteraction to the external threats to national security, life, health of citizens and objects of state property outside Ukraine.

In order to implement the tasks, military intelligence as one of the elements of intelligence bodies system obtains information, which is impossible to collect officially about the actual and potential capabilities, plans, intentions and actions of foreign states, organisations and individuals which threaten the national interests of Ukraine, as well as any events and circumstances related to the national security and defence.[8]

Thus, the "military intelligence of Ukraine is one of the most important subjects of the system of support of the national security, which executes a wide spectrum of tasks aimed at the protection of national interests."[9]

The organisational structure of the DID comprises: operational, analytical and other functional units as well as subordinate educational and research institutions. The functional structure of the DID includes structural units which perform: management and co-ordination of intelligence activity of the military intelligence system, collection of intelligence information, informational and information-analytical work and comprehensive support to intelligence activity.[10]

The successful implementation of intelligence tasks requires a corresponding level of secrecy from the DID. At the same time, military intelligence should be apolitical in a democratic state and subject to state civil control, and it should comply with professional and ethical standards. "In the democratic state, they (special services, *author's remark*), on the one hand, should be effective to provide protection of democratic values of society and promote its progressive development, on the other hand, they should be politically neutral to operate within the limits of legally provided authorities and responsibilities in accordance with constitutional and legal regulations and democratic principles," – as V. Yuschenko, the President of Ukraine, stated in the preface of the "White Book-2007: Security service and intelligence bodies of Ukraine."[11]

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[8] Areas of Activity (online resource), Ministry of Defence, Defence Intelligence Department, 22 August 2009; http://gur.mil.gov.ua/content/directions.html.

[9] V. Hvozd, "State and Basic Areas of Protection of State's National Interests in Modern World Situation," *Science and Defence* 2 (2009): 15–19, p. 18.

[10] V.P. Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine* (Kyiv, 2007), p. 18.

[11] Ibid., p. 6.

To implement assigned tasks, the military intelligence applies methods and means of investigation and search operations under procedures provided in the Law of Ukraine "On the operational investigation activity." However, legislation specifies certain limitations in terms of the application of methods and means of operational activity: they "should not be harmful to the life, health, honour and dignity of people."

Information related to the personal life, honour and dignity of citizens, which became known to the intelligence bodies in the process of their work, is not subject to the disclosure, except cases, foreseen by the law."[12]

In addition, it is forbidden to gain information through the application of psychotropic, chemical and other substances which repress will or harm the health of people and the environment. It is also forbidden to involve medical workers, clergymen or advocates, if a person who is subject to operational investigations measures is their patient or client.[13]

It should be highlighted that the system of democratic civil control of intelligence bodies, including military intelligence, has been established in Ukraine. Such control is carried out in accordance with provisions of the Law of Ukraine "On the democratic civil control of military organisations and law-enforcement authorities of the state" dated 19 June 2003.[14] As V. Yuschenko, the President of Ukraine, states "The introduction of democratic control of the security sector in Ukraine becomes more reasonable and actual." A striking example of his statement is the functioning of the NATO-Ukraine Working group for the democratic civil control of the security sector which operates under the auspices of the NATO-Ukraine High-Level Joint Working Group on Defence Reform."[15]

All three branches of state power execute control of the activity of intelligence bodies according to Section IV (24-27pp.) of the Law of Ukraine "On the intelligence bodies of Ukraine":

- The President of Ukraine, including through the National Security and Defence Council of Ukraine headed by the President. Intelligence bodies report to the President and are accountable to him;

- The Verkhovna Rada of Ukraine in the order set by the Constitution of Ukraine;

- The Prosecutor General of Ukraine together with authorised public prosecutors in accordance with the Constitution and the laws of Ukraine.

A special group from the Audit Chamber of Ukraine was established to control the expenditure of funds allocated from the State budget of Ukraine on the maintenance of intelligence bodies and financing of their activity.[16]

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12 The Law of Ukraine "On the Intelligence Bodies of Ukraine," p. 4.

13 Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine*, p. 45.

14 The Law of Ukraine "On the Democratic Civil Control of Military Organization and Law-Enforcement Bodies of the State" (online resource); http://zakon.nau.ua/doc/?code=975-15.

15 Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine*, p. 45.

16 The Law of Ukraine "On the Intelligence Bodies of Ukraine," p. 5.

DID also established an official website in the context of requirements of compliance with principles of a democratic state, in particular support of transparency in its activity for society.[17] The website contains information about DID leadership, its history, legal and regulatory framework, and areas of activity.

In addition, the "White Book 2007: Security Service and Intelligence Bodies of Ukraine" was published with an open edition in 2007 where it covered such aspects as the organisational structure of the DID, system of personnel selection and training, international cooperation, financing, logistics and social support, civil control of military intelligence and reform efforts.

The DID establishes and supports contacts with special services from foreign states to achieve assigned tasks with the consent of and within the scope specified by the President. DID has partner relations and actively cooperates with all military intelligence services of the world's leading countries, with special services activities which do not threaten the national interests of Ukraine. It supports cooperation in the form of delegations at different levels, working group meetings and on the basis of bilateral or multilateral agreements. Its experience of cooperation in the framework of the safety and security of participation of Ukrainian military contingents in peacekeeping operations is especially highlighted in this context.[18]

O. Halaka, former chief of DID, believes that "interaction with the foreign special services in the context of European and Euro-Atlantic integration today allows us to show Ukraine's aspiration to contribute to security and stability in Europe and in the world on the whole to our Western partners, first of all, the EU and NATO members. There is another aspect in such cooperation. It actually gives the MoD's Defence Intelligence Department a unique possibility to practically study lessons learned by the special services from leading Western states in anti-terrorist activity and to bring our experience into line with NATO standards."[19]

It should be noted that the "school of military intelligence expert training was created in Ukraine and it fully meets the needs of the MoD's intelligence structures. It provides training for military experts at three levels: tactical, operational-tactical and operational-strategic. DID officers are trained at the UAF higher military educational establishments and the Joint Institute at the National Defence Academy of Ukraine."[20]

As Yuschenko states, "a very important factor which determines the efficiency of the special services is the availability of high-trained personnel, continuity of work and introduction of the newest technologies in their activity. International experience shows: if the

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[17] Ministry of Defence's Defence Intelligence Department (online resource), Official website of MoD DID (2009); http://gur.mil.gov.ua/.

[18] Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine*, p. 48, 50.

[19] A. Halaka, "Today We Managed to Create a Fully-Fledged, Self-Sufficient System of Military Intelligence," *Unknown Intelligence* 5:6 (2005), p. 46.

[20] Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine*, p. 55.

state does not pay sufficient attention to the development of the system of the special services for a long time, then restoration of its effective work will require considerable resources and time."[21]

The military intelligence division celebrates its anniversary on 7 September when in 1992 the President signed a Decree ratifying the establishment of a Military Strategic Intelligence Department within the MoD. However, it should be noted that the modern military intelligence of our state has deeper historical roots.

Throughout its history, Ukraine has been a part of other countries or its separate parts simultaneously have belonged to different states. But there were two moments in its history, not taking into account the times of Kyiv Rus, when Ukraine became independent for a while. This included a period of the Cossack state of Bohdan Khmelnytskiy and a few years after the October revolution in 1917. During these periods, attempts were made to lay foundations in military intelligence as a means to support the national interests of Ukraine by performing tasks at the state level.

During the Cossack state of B. Khmelnytskiy, the hetman had agents not only in the army of Rzecz Pospolita but also in the inner circle of separate political figures and even kings, which provided the receipt of valuable information of military and political value. At the end of 1650, intelligence operated so effectively, that its data allowed hetman's office to fold the reports of meetings of not only Seim but also of the secret royal council.

In most military campaigns, B. Khmelnytskiy's reconnaissance units always succeeded to timely and accurately set the route of enemy movements and location, uncover plans of the Polish command, the numeric strength of its army, and the capacity of cities and fortresses, and so on.

Both forms of collection of secret information were developed and the military intelligence acquired a certain organisational structure. As a result, Ukraine's intelligence activities between the years 1917 to 1921 assisted in the provision of prompt information support to the Army of the Ukrainian People's Republic at both the tactical and strategic levels. The researcher Ya.Tynchenko remarked that, "Ukrainian intelligence had data about red and white troops more precisely than even commanders of the troops."[22]

The system of military intelligence in modern Ukraine was created on the basis of C2 bodies of the intelligence units and formations of the former Soviet Union. This included military intelligence in Kyiv, Odesa, Prykarpattya territorial departments, the 8th detached air defence army, the 17th air army and, partly, and the Black Sea Fleet. However, these structures were only the elements of the Main Intelligence Department at the USSR MoD's General Staff and did not have a strategic component. The problem rested in the creation of its own foreign intelligence service, system of personnel training and in the combination with all the elements of military intelligence into one joint structure – the MoD intelligence body.

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[21] Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine*, p. 7.

[22] History of MOD, DID Creation (online resource), Ministry of Defence, Defence Intelligence Department; http://gur.mil.gov.ua/content/creation.html (22 August 2009).

The MoD's General Staff Intelligence and Electronic Warfare Department was established in February 1992. In October 1993, it was combined with Military Strategic Intelligence Department as an integral body to become the DID. It should be noted that the signing of the Presidential Decree following the creation of this body within the Ukrainian MoD was of great importance for the establishment of the military intelligence service, but it was practically of a declarative nature by that time.

On the whole, the development of Ukraine's military intelligence service can be divided into four stages:

- The *first stage (1993-96)*: Establishment and beginning of active functioning of military intelligence C2 bodies;

- The *second stage (1997-2000)*: Establishment of MoD Defence Intelligence Department as a governmental structure;

- The *third stage (2001-03)*: Increase in military intelligence efforts with increasing peacekeeping activity and an intensification of the threat of international terrorism to society;

- The *fourth stage (2004 – the present)*: Improvement of military intelligence structure and increase in its effectiveness.[23]

It is also possible to distinguish the overall directions of its development at every stage mentioned above.

During the *first stage*, the following results were achieved:

- A joint central command and control body was established to provide leadership for all structures of military intelligence both for the Armed Forces of Ukraine and at the external strategic level – the MoD intelligence body.

  In the framework of reform of the first component—military intelligence of the Armed Forces of Ukraine—a system to manage peacetime intelligence and combat duty was established to complement the national security conditions created by a new system of international relations and Ukraine's establishment as an independent sovereign state.

  As previously mentioned, the second component—military strategic intelligence—was built from the very beginning. However, foundations for the establishment of forces and a capabilities system for the foreign intelligence service developed during this period, including offices of foreign military missions (FMM) at Ukraine's embassies. Over one and a half dozen FMM offices were opened in the United States, Russia, Poland, Belgium, the Czech Republic, Hungary, Romania, Slovakia, Austria, Bulgaria, Germany, United Kingdom, China and elsewhere. "In general, Ukraine currently has around 50 FMM offices which due to

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[23] O.O. Skipalskiy, V.I. Legominov (Chair), Ihor P. Smeshko, et al., eds., *Military Intelligence Service of Ukraine – 15 Years: Events and People* (Kyiv, 2007), p. 15–64.

combining activities are accredited in more than 60 countries of the world located on all continents."[24]

- A system of information and analytical support to users of intelligence information was established, and approved by corresponding guidance documents drafted by senior government officials and different levels of the UAF Command. To implement these tasks, specific informational structures were established to provide information and analytical support at the strategic and operational-strategic levels.

- A personnel selection and training system was established. A central element in the system is the Higher Military Educational Institution (HMEI) which has a IV level of accreditation and provides military intelligence expert training for UAF structures with fluent foreign language proficiency. HMEI was established in 1994 and Ukraine stands alone among post-Soviet countries, with the exception of Russia, as having such an institution.

The *second stage* of intelligence development was shaped by both foreign and national policy considerations, including:

- A "Charter on distinctive partnership between Ukraine and the North Atlantic Treaty Organisation" signed in July 1997;

- Serious intensification of the military-political situation in the Balkans resulting in a NATO military operation against the Federal Republic of Yugoslavia named 'Allied Force' in March–June 1999;

- Sharp worsening of relations between Ukrainian strategic partners—Russia and the United States—in connection with events on the Balkan peninsula;

- Presence of instability in some countries in the post-Soviet space;

- A "Combined intelligence program" which was introduced in 1997 through a corresponding Presidential decree and which became the first in the history of independent Ukraine when military intelligence was prescribed new tasks and objectives;

- Permanent reform of the Armed Forces of Ukraine and a considerable downsizing;

- In 2001, the final liquidation of intercontinental ballistic missiles and missile silos from the USSR on the territory of Ukraine, acceptance of a nuclear-free status;

- Increase of participation of Ukraine's military contingents in peacekeeping operations. Our country is one of the ten largest contributors to UN peacekeeping operations;

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[24] Skipalskiy, Legominov, Smeshko, et al., eds., *Military Intelligence Service of Ukraine – 15 Years: Events and People*, p. 26.

- Need to strengthen Ukraine's role as a responsible player in the international system as one of the leaders in Eastern and Southern Europe, etc.

These grounds contributed to military intelligence tasks which gained a more military-political as opposed to an exclusively military nature. These developments required the creation of a regulatory and legal framework for military intelligence activity that was formulated in the Law of Ukraine "On the intelligence bodies of Ukraine" dated 22 March 2001 #2331-III.

This stage also became a basis for the substantial strengthening and continued development of cooperation between military intelligence and other intelligence bodies of the state in the framework of Ukraine's intelligence community which are eligible to perform foreign intelligence—Ukraine's Security Service (SSU) (Foreign Intelligence Service of Ukraine was lately disintegrated from SSU), Intelligence Department within the Administration of the Border Guard Service of Ukraine—as well as law enforcement bodies of the country. The Presidential Intelligence Committee played a coordinating role in this process. Unfortunately, it was groundlessly liquidated in 1999. We believe that it was a fundamental mistake "because it is simply impossible to provide the integral and positive results of efforts taken by special services without a coordinating system."[25] This Committee drafted the "integrated intelligence program" and produced daily intelligence reports for senior state officials on important directions of national security and defence.

An enlargement of cooperation between Ukraine's military intelligence and similar structures in other countries of the world became noticeable during this period and created the basis for the development of a legal environment for the drafting and further execution of intergovernmental agreements regarding mutual protection of national secrets, international information exchanges, etc. Such activity resulted, for example, in the signing of an intergovernmental agreement between DID and the General Staff's Main Intelligence Department of the Armed Forces of the Russian Federation in 1997 which forbids the military intelligence services of both countries to perform special intelligence operations against each other.

The DID's higher military institution—the Joint Institute at the National Defence Academy of Ukraine—was established at this time, and the Institute was granted a level IV accreditation in the general system of higher education in 1998. The specialised scientific council was created at the Institute to train and educate academic personnel for the military intelligence system of Ukraine.

It can be said that the *third stage* of development of Ukrainian military intelligence began with the emergence of asymmetric threats to national security. It evidently showed up during the events of 11 September 2001. In addition to the intensification of international terrorism, there was a rise in transnational threats, proliferation of weapons of mass destruction, worsening of the global environmental situation, international crime, increase in

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[25] Ihor Smeshko, "Ability to Hold a Blow" (online resource), *Veterangru* website, 15 October 2004; www.veterangru.kiev.ua/smi/smi7.htm.

migration, drugs and human trafficking as well as an increase in the number of armed conflicts all over the world. These challenges required the combined actions of civilised countries against the common adversaries which embodied these threats. Such common counteraction to the asymmetric threats had to be taken in all areas and different directions applying effective methods and instruments. Of course, special services, including military intelligence, are effective instruments of the state in detecting such threats to its national security.

The nature of these challenges and threats to national security meant that DID was forced to reform its organisational structure and the way it collected information. The organisation was assigned with different tasks to address the new military-political challenges.

The regulatory and legal framework for military intelligence activity was also subject to improvement, in particular, in the context of increasing cooperation of Ukrainian special services, especially in the framework of activity aimed at detection of the mentioned threats. These changes were represented in amendments introduced to the Law of Ukraine "On the intelligence bodies of Ukraine," Law of Ukraine "On the basics of the national security of Ukraine" ratified on the 19 June 2003[26] and other legal documents which were used as the basis to approve new provisions in the DID and its structure through Presidential Decrees.

In 2001, a department for interagency relations was created to maintain effective cooperation between DID leadership and legislative and executive authorities in the general system of the national security of the state.

Information and intelligence support for Ukrainian involvement in peacekeeping operations, incorporating support from the special services of foreign states, was considerably increased during this period.

Ukraine positively responded to an American offer to participate in international stabilisation operations in Iraq. S. Paifer, Deputy Assistant to the US Secretary of State for Europe and Eurasia, stated in May 2003, that Ukraine showed its ability to make a major contribution to European and world safety and security, and that Ukrainian military servicemen have "considerable capabilities to be used."[27] Units of military intelligence were firstly attached to a Ukrainian military contingent which has operated in Iraq since the beginning of UAF participation in peacekeeping operations. "Timely support of contingent commanders with reliable intelligence data about actual and potential threats to the safety and security of Ukrainian peacekeeping personnel in Iraqi Republic was determined as priority of military intelligence."[28]

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[26] The Law of Ukraine "On the Basics of the National Security of Ukraine."

[27] S. Solodkiy, "For the Sake of Stabilisation," *The Day* 82, 16 May 2003, p. 3.

[28] Skipalskiy, Legominov, Smeshko, et al., eds., *Military Intelligence Service of Ukraine – 15 Years: Events and People*, p. 60.

Against this background, the efficiency of personnel policy in military intelligence leadership was increased with the introduction of testing and perspective planning for every DID officer.

Thus, the next stage of reform was completed in 2003 when the organisational structure of the DID as an intelligence body within the MoD was brought into line with the tasks and functions specified by the Law of Ukraine "On the intelligence bodies of Ukraine" and other legal acts. However, as stated in the "White Book 2007: Security Service and Intelligence Bodies of Ukraine," specific features of the Ukrainian political culture known to the public and systematic democratic reforms in the security sector were not introduced in this period. The orange revolution in 2004 contributed to deep reform of the special services of Ukraine which has continued to the present day."[29]

Military intelligence is further improving during the *fourth*, present, *stage* of its development.

These reforms relate to growing requirements to respond to the emergence of new unconventional threats. Moreover, these developments are coinciding with the downsizing of the Armed Forces of Ukraine. Taking this fact into consideration, the DID drafted a Concept of the Military Intelligence Model – 2015. In the context of the "State program of development of the Armed Forces of Ukraine for 2006-2011" ratified by the President in December 2005, MoD intelligence experts also drafted a "Program of the military intelligence development" for the period until 2011.

The Concept specifies tasks for military intelligence in the national security and defence area, and the means to increase its capability to respond to potential challenges and threats to national security, as well as a resource basis allocated by the state for defence needs (and directly for military intelligence). This document determines threats to national security which should be minimised, first of all, by military intelligence. The Concept also outlines DID intelligence strategy where priorities of military intelligence up until 2015 are determined, and for a further period of time in the area of the geopolitical interests of Ukraine. In addition, the document clearly defines the structural components and stages of reform and development of Ukraine's military intelligence system.[30]

The "White Book 2007: Security Service and Intelligence Bodies of Ukraine" contributed to how reform efforts were achieved and specifically through two important tasks:

- Establishment of a commonwealth of special services of Ukraine as an integral institution of the modern democratic state;

- Demonstration of aspiration of political leadership and national special services to hold substantial dialogue with the public.

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[29] Horbulin, ed., *The White Book 2007: Security Service and Intelligence Bodies of Ukraine*, p. 10.

[30] Lectures held by O. Halaka, Head of MOD DID: "Concept of Model of Military Intelligence Service of Ukraine for 2015," 1 September 2006, for staff and students of Joint Institute at the National Defence Academy of Ukraine.

As the authors of "Military Intelligence of Ukraine – 15 years: Events and People" state: "The course taken by Ukraine towards Euro-Atlantic integration activated the processes of cooperation between MOD DID and other intelligence services. Working for the national security of Ukraine, military intelligence collects considerable part of information related to the threats to our country exactly through such cooperation. Effective working relationships with practically all neighbouring states as well as with many NATO countries were established during this period. It allowed Ukraine to get important and substantial information, especially about the threats to peacekeeping contingents, fighting against terrorism and organised crime."[31]

During its 17 years of existence, military intelligence demonstrated its capacity to operate as a world-renowned special service which performs tasks with a high level of efficiency. It is demonstrated by the results of its activity. Yushchenko underlined this during celebrations held on the occasion of the 17th anniversary of Ukrainian military intelligence: "Military intelligence was, is and, I'm convinced, will always be the instance of patriotism, loyalty to Ukraine and to its duty. I highly appreciate the efforts of the Ukrainian MOD Defence Intelligence Department, and every serviceman and civil officer of the military intelligence service. We cannot imagine a safe life for every citizen of Ukraine without your work, without successful counteraction to the threats and challenges to national security. Your weapon is—first of all—an intellect, an ability to operate on prevention, skills to forecast challenges and threats to national security."

The President of Ukraine highly appreciates the work of the DID which makes possible the participation of Ukraine in peacekeeping operations and the international fight against terrorism, extremism, arms trafficking and so on. He especially emphasised the active participation of the intelligence service in the liberation of Ukrainian citizens from pirate captivity. "The Ukrainian intelligence service is a mature and valuable structure with considerable potential, which is capable of timely and effectively responding to all challenges at the present time."[32]

Today, DID is further developing as it is a comparatively new structure which needs to constantly accumulate experience during the achievement of specific and complicated tasks at the uneasy beginning of the 21st century. Lieutenant-General V. Hvozd, Head of DID, noted in his interview with the "Time and Events" newspaper, that "today, we can surely state that an effective structure of military intelligence was created in Ukraine, which unites both intelligence, meaning those which 'obtain' information, and information-analytical structures. However, this does not mean that the development of military intelligence should stop at this stage. Indeed, it is important to analyse the priorities of its future advancement. Our state has the scientific and technical potential to create, for example, a

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[31] Skipalskiy, Legominov, Smeshko, et. al, eds., *Military Intelligence Service of Ukraine – 15 Years: Events and People*, p. 59.

[32] V. Yushchenko, "Celebration Held on the Occasion of the 17th Anniversary of the Military Intelligence Service of Ukraine," Official website of MoD DID (2009); http://mil.gov.ua/news/print_news.php.

strong space intelligence service. MOD DID also has a vision of further development for the whole structure so as to provide effective opposition to the existing spectrum of threats. The only problem is a lack of financing. Recent events in the international arena show that the world does not become safer, and it is simpler to neutralise threats during their initial stage of emergence. Military intelligence is exactly that instrument which enables us to ensure such neutralisation. Hopefully, both society and the different branches of power will understand the importance of this."[33]

Reflecting on this statement, it is prudent to remember the opinion expressed by A. Hritsenko, Chairman of the Verkhovna Rada Committee, concerning the financial constraints facing military intelligence despite the absence of direct threats to security and national defence, but at a time when asymmetric threats affect every country. Based on conclusions made by parliamentary committee members and analysis conducted by DID following a field meeting held in March 2009, A. Hritsenko remarked that the military intelligence is generally able to execute assigned tasks, and its readiness level is satisfactory. At the same time, he noted that the implementation of the DID development program is frustrated not by DID operational leadership but by the "insufficient attention by senior management of the state, government and parliament to the matters of resource support to DID." Hritsenko added that the level of implementation of measures specified in the Program did not exceed 30%. In this case, the Committee made a decision to recommend the President of Ukraine and the government to revise the Program of DID development without delay.[34]

The need for further development of the structure and tasks of military intelligence also found support in the President's speech made on the 17th anniversary of Ukraine's military intelligence on 4 September 2009. Among the current DID tasks, the President also identified the need to mobilise all necessary capabilities to provide high-quality forecasting and guarantees against any actual threats to the state, its integrity and inviolability of its borders. He underlined that it is important to conduct activities in support of a Euro-Atlantic course for Ukraine and develop a security strategy in Europe.

The head of state also recognises the importance of providing continued support and contributions to UN peacekeeping operations and close cooperation with foreign partners to counter global and regional challenges to security (including piracy, separatism, and extremism).

Yushchenko stated, "I should pay special attention to the need for the provision of safety and security of our citizens abroad, including countering human trafficking. In addition, you are tasked with establishing new effective forms of cooperation with leading states of the world, which will strengthen our ability to react to known and new threats." He also

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[33] Hvozd, "MoD Defence Intelligence Department: There Are No Friends in Intelligence."

[34] "A. Hritsenko Wants to Review the Program of Development of Ukrainian Military Intelligence Service," *UNIAN*, 19 March 2009; www.newsru.ua/arch/ukraine/19mar2009/gritsenko2.html.

assured that the state would strengthen the technical capabilities of the intelligence service.[35]

Thus, analysing the 17-year history of the establishment, development and reform of the military intelligence service of Ukraine, we can conclude that:

1. The military intelligence service is one of the most effective bodies of Ukraine's Armed Forces which operates in full combat readiness to support the national interests of the country.

2. Military intelligence operations are not only a departmental function within the Ministry of Defence of Ukraine, but, first of all, a governmental function as the DID performs tasks which support national interests and senior state management.

3. To achieve assigned tasks, the military intelligence service, as one of the elements of intelligence bodies of Ukraine, obtains information, which cannot be officially obtained about actual and potential capabilities, plans, intentions and actions of foreign states, organisations and individuals related to national security and defence.

4. The Ukrainian government has established democratic civil control of intelligence bodies, including the military intelligence service.

5. A school has been established to train military intelligence experts in Ukraine, and it operates to fully meet the needs of MoD intelligence structures.

6. The modern military intelligence service of Ukraine has deep historical roots.

7. Although the military intelligence service of Ukraine was formed on the available elements of military intelligence service from three territorial departments of the former Soviet Union, the problem of its creation rested with building its own foreign intelligence service and system of personnel training and unifying disparate components into a joint structure, i.e., the MoD intelligence body of Ukraine.

8. The military intelligence service of Ukraine underwent several stages of development in response to permanent changes in the military-political situation and the changing geopolitical role of Ukraine in the world. Certainly, the reform process will continue.

9. During the 17 years of its existence, the military intelligence service has demonstrated that it is a world-renowned special service which performs tasks with the highest level of effectiveness.

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[35] Yushchenko, "Celebration Held on the Occasion of the 17th Anniversary of the Military Intelligence Service of Ukraine."

Section 3
Reform of Law Enforcement Authorities in Ukraine

Anatoliy Maruschak and Hrihoriy Usatiy

The reform of law enforcement authorities is an extraordinarily difficult process with long-term prospects which require the participation of both governmental bodies and public organisations.

Ukraine's decision to align itself more closely with Europe obliged it to reform the roles and functions of its law-enforcement authorities to meet Council of Europe (CoE) principles, as stated in the Parliamentary Assembly of the CoE Opinion dated 26 September 1995.[1] The PACE Monitoring Committee analysed the measures taken by Ukraine to achieve the CoE obligations,[2] and found both positive and negative tendencies in this process and, at the same time, fixed progressive changes in the reform of Ukraine's law-enforcement authorities.[3]

The following issues were reflected in national science:

- Improvement of regulatory and legal support to reform the law-enforcement system of Ukraine;

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[1] PACE Opinion #190 (1995) on Ukraine's claim of integration to the European Council (Online resource); available at http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=994_590.

[2] PACE Resolution #1466 (2005) "On the Fulfillment of Obligations and Commitments of Ukraine" (Online resource); available at http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=994_611.

[3] Yu.A. Petrochenko, "Reform of the Law Enforcement Authorities of Ukraine," http://mndc.naiau.kiev.ua/Gurnal/12text/g12_01.htm; Adrian Beck, Alexei Povolotskiy, and Alexander Yarmysh, "Reform of the Militia in Ukraine," in *Transforming Police in Central and Eastern Europe*: *Process and Progress*, ed. Marina Caparini and Otwin Marenin, Ukrainian version (Kyiv: Zadruga, 2005), 296 p.; M.I. Melnik and M.I. Khavronyuk, *The Court and Other Law Enforcement Bodies. Law Enforcement Activity: The Laws and Comments*, Educational Manual (Kyiv: Atika, 2000), 512 p.; V.A. Moldovan, *Law Enforcement Bodies*, Lectures (Kyiv: Yumana, 1998), 160 p.; I.Ye. Marochkin, N.V. Cybiliova, and O.M. Tolochko, eds., *Organisation of the Courts and Law Enforcement Bodies* (Kharkiv: Law, 2000), 269 p.; Professor A.M. Bandurka, ed., *Judicial and Law Enforcement Bodies of Ukraine*, Textbook (Kharkiv: MoI University, 1999), 350 p.; N.S. Yuzokov, *System of Judicial and Law Enforcement Bodies of Ukraine*, Educational Manual (Dnipropetrovsk: IMA-press, 2000), 280 p.; etc.

- Stages of reform of law enforcement authorities of Ukraine;
- Use of positive foreign experience and implementation of international legal acts related to law enforcement reform in Ukraine.

At the same time, many aspects associated with this problem remain debatable. One of the main reasons which predetermine difficulties in law enforcement reform relates to the unavailability of clear compatible criteria and joint standards of efficiency in the activity of Ukrainian law enforcement authorities.

Other problems include the disparity of measures taken to counteract crime, its progress and scale.

Victor Yushchenko, the President of Ukraine, remarked in his Address to the Verkhovna Rada of Ukraine in 2006, that "it is high time to bring the activity of law enforcement authorities to European standards by strengthening the functions of civil control."[4] In fact, it is impossible to develop a legal state, which requires, *inter alia*, creation of effective law enforcement authorities to support the implementation of full range of state functions without proper protection and compliance of rights and freedoms of all subjects in society.

Law enforcement is characterised by a series of problems, including contradictions in legislation which regulate the activity of law enforcement authorities, decline in prestige and the level of public trust, insufficient social and legal protection, and so on.

The process of law enforcement reform, which is initiated and coordinated by the President of Ukraine, should, first of all, provide:

- Impartial and prompt implementation of legally specified functions by law enforcement authorities;
- Steady performance of duties by law enforcement authorities in accordance with national and international legislation requirements;
- Functioning of an effective system of interaction between the law enforcement authorities of Ukraine, as well as information exchange between national law enforcement authorities and competent bodies from foreign states and international organisations working in the field of crime prevention;
- Effective democratic and civil control of the law enforcement authorities of Ukraine in the area of compliance with requirements of legislation and citizen rights and freedoms;
- Counteracting crime in the area of violation of individual rights and freedoms; economy and turnover; corruption; creation and activity of organised criminal groups; illegal migration; drug trafficking; illegal use of computer technologies; etc.
- Improvement of procedures for the detection, documentation and investigation of crimes;

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[4] The Presidential Address to the Verkhovna Rada of Ukraine in relation to the Presidential Letter to the Verkhovna Rada of Ukraine "On the Internal and External state of Ukraine in 2005" (Online resource); available at www.president.gov.ua/news/2359.html.

- Achievement of high level of financial, personnel and technical support to the law enforcement authorities of Ukraine.

Basic directions in law enforcement reform are:

- Improvement of regulatory and legal support to the activity of law enforcement authorities;
- Removal of duplication of functions in the activity of the different law enforcement authorities of Ukraine;
- Balancing of law enforcement structure, optimisation of composition of its components in accordance with assigned tasks taking into account present threats to national security;
- Improvement of social, personnel and educational policy in the law enforcement area;
- Forming of positive public attitude towards law enforcement authorities and reform process;
- Development of infrastructure and improvement of logistic support;
- Increase of efficiency of international cooperation and partnership in law-enforcement activity;
- Deepening of democratic civil control of law enforcement authorities;
- Prevention of intervention by political forces in the activity of law enforcement authorities.

Unfortunately, law enforcement reform for many years was mainly oriented to the interests of separate departments, which initiated reforms in this field. The search for ideology and combined development of a new approach to law enforcement restructuring commenced in 2005, when the Joint Commission for Law Enforcement Reform was created at the National Security and Defence Council of Ukraine in accordance with a Presidential Decree.[5] This Commission drafted conceptual principles of law enforcement reform which supported gradual reform of Office of Public Prosecutor, Security Service of Ukraine, Ministry of Interior of Ukraine, State Customs Service of Ukraine, State Tax Administration of Ukraine, State Sentence Execution Department of Ukraine, Military Law and Order Service of the Armed Forces of Ukraine, State Border Guard Service of Ukraine, and State Safeguard Service of Ukraine. In addition, the establishment of new bodies was supported. They included a Special Purpose Law-Enforcement Authority to fight corruption and an Administration of State Penal Service of Ukraine to execute punishments in state institu-

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[5] "On the Commission for Law Enforcement Reform," Presidential Decree #17 dated 17 January 2001; available at http://zakon1.rada.gov.ua.

tions and legally provide order and terms of detention of convicted and detained persons in pre-trial detention cells.[6]

Three stages of corresponding reforms were also determined:

1. In 2007 – amendments to the Criminal Code, drafting of the new Criminal Procedure Code and preparation of institutional transformations;

2. In 2008-09 – institutional reforms and adoption of new editions of laws which regulate the activity of law enforcement authorities;

3. In 2010-12 – completion of institutional reforms.

In April 2007, the National Commission for Democracy Strengthening and Rule of Law Consolidation published a Concept of law enforcement reform. A structural-functional approach was established as the basis of the Concept. Under this Concept, reforms should include a criminal right, criminal process, separate law enforcement institutes and order of implementation of court decisions. Reform has to begin with drastic changes to the Criminal and Criminal Procedure Codes. This has to be the basis for institutional transformations supported by the adoption of new editions of laws (in particular, "On the Office of Public Prosecutor," "On the Security Service of Ukraine," "On the Police," etc.).

Considering these institutional transformations, the National Commission utilised the many achievements and developments of the Joint Commission for Law Enforcement Reform (documents drafted by the Commission have identical fragments).

Ukraine's new stage of law enforcement reform began in Spring 2008. The Concept of Security Service Reform was ratified in March, and the Concept of Reform of the State Crime Executive Service of Ukraine was approved in April. In accordance with law enforcement reform, the President also approved the Concept of Criminal Justice Reform[7] in May 2008 which provided for the creation of a joint anticorruption agency.

As Yushchenko states, "security sector institutions, which are still operating under old Soviet penal principles, should be re-oriented and be aimed at the protection of rights and interests of citizens. The concept of state policy in criminal justice should be practically implemented so as to ensure that these words do not remain a beautiful phrase."

Implementation of this concept should support the humanisation of criminal legislation and improvements to Ukraine's criminal procedure norms and contiguous legislation by applying world experience, restructuring the organisational and functional structure of criminal justice, increasing the efficiency of criminal law proceedings, and strengthening the protection of rights and interests of persons in need. The tasks of criminal justice reform rest with the introduction of new pre-trial investigation procedures, improvement of judicial

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[6]   N. Pelivanova, "State Bodies' Duties and Responsibilities in Control over Compliance with Legitimacy and Countering the Crime: Problems of Effectiveness (Online resources); available at www.niss.gov.ua/Monitor/Desember/05.htm.

[7]   Annual Address of the President of Ukraine Viktor Yuschenko to the Verkhovna Rada of Ukraine on the internal and external state of Ukraine in 2008 (Online resource); available at www.president.gov.ua/news/9941.html.

control and strengthening of public prosecutor's oversight over its implementation. According to the concept, pre-trial investigation of crimes and criminal misconduct should share a common functional purpose during the differentiation of procedural form under criteria prescribed by the legislation.

As a result of criminal justice reform, pre-trial investigations should be assigned to the national police, financial police, military police, and investigation units from the Security Service of Ukraine, a specially created pre-trial investigation corruption offences agency (anticorruption body). However, criminal justice reform on the whole and the creation of a separate anticorruption body in particular, does not automatically resolve the problem of corruption. There should be a clear division between the implementation of general preventive measures and an increase in the efficiency of the law enforcement system. These two functions are separate and they should not be mixed up.[8]

Under recommendations of the Council of Europe's Group of States against Corruption (GRECO), efforts should be centralised not only within the limits of Ukraine's law enforcement system but also at the national level. Therefore, it would be reasonable to create, in addition to the specialised law enforcement structure, another body to form national anticorruption policy and overall supervision. This body should represent the interests both of the state and society. It should have a necessary level of independence to perform effective monitoring. It is extremely important to actualise existing or develop new action plans for the implementation of the anti-corruption concept, "On the way to morality."[9] This document should become the subject of international examination and provide close cooperation and assistance from the international community.

Features of historical development and the specifics of the national legal system should also be considered during the law enforcement reform process. In accordance with the determined directions in reform, the following laws of Ukraine should be improved and amended: "On the intelligence bodies of Ukraine," "On the State Border Guard Service of Ukraine," "On the State Tax Service in Ukraine," "On operational investigations operations," "On counterintelligence activity," "On the organisational and legal framework in support of the fight against organised crime," "On the defence of Ukraine," "On the State boundary of Ukraine," "On general military duty and military service." In addition, new editions of the Criminal Procedure Code, civil service, security service, other security sector agencies, crime prevention, interception of telecommunications, and Tax Code should be drafted and ratified.

The President of Ukraine implemented a range of measures in law enforcement reform, including:

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8   GREKO EVAL, "Evaluation Report on Ukraine. The First and the Second Rounds of Joint Evaluation," 1-2 Rep.(2006)2E (Strasburg, 21 March 2007); available on-line at www.minjust.gov.ua/files/GREK0_091107.doc.l.

9   On the concept of fighting corruption in Ukraine "On the Way to Morality," Presidential Decree #742/2006 dated 11 September 2006; available at http://zakon1.rada.gov.ua.

Presidential Decree dated 23 May 2005 #834/2005 approved provisions on the inter-agency committee for law enforcement reform which undertakes the following basic tasks:

- To analyse the activity of law enforcement authorities, and determine compliance levels in relation to the challenges and threats to the national security of Ukraine;

- Taking into account acknowledged international norms and standards, to prepare recommendations for the improvement and optimisation of law enforcement authorities in Ukraine, their structure and organisational activity;

- To organise the drafting and examination of draft laws, acts of the President of Ukraine, the Cabinet of Ministers of Ukraine, programs, activities related to the improvement of the organisation and activity of law enforcement authorities; to coordinate work in strengthening the fight against crime, corruption, protect the rights and freedoms of citizens; and detect and prevent external and internal threats to the security of Ukraine.

Presidential Decree dated 31 January 2006 #80/2006 acknowledged as a necessity to create the joint computer information system of law enforcement authorities on crime fighting.

Presidential Decree dated 15 December 2006 #1087/2006 acknowledged that the level of cooperation between local executive bodies and law enforcement authorities is unsatisfactory, which affects the state of legality and law and order in the country, as well as compliance with the rights and freedoms of citizens. The Cabinet of Ministers of Ukraine was tasked to address this issue through:

1. Approving measures to improve cooperation between local executive bodies and law enforcement authorities on legality and law and order planning issues, in particular by:

    - Introducing a mechanism to hold joint meetings and conferences on crime fighting in the practical work of local state administrations and law enforcement authorities;

    - Permanently monitoring the influence of social processes on the state of public order and using measures to prevent and neutralise negative tendencies in this area;

    - Determining the order of public information about the violation of constitutional rights and freedoms of citizens by law enforcement authorities and responses to such violations;

    - Supporting the financing of crime prevention programmes;

2. Speeding up the approval of a combined offence prevention program for 2007-09.

Presidential Decree dated 20 March 2008 #245/2008 ratified the creation of a commission for drafting the concept of reform of MoI bodies.

Presidential Decree dated 20 March 2008 #249/2008 approved the Concept of Security Service Reform which is aimed at the creation of a special service which would be effective, dynamic and flexible in management, manned with experts, and furnished with modern material and technical facilities. This reform also intends to bring the tasks, functions and directions of the service's activity into line with current national security needs in the area of state security, and the protection of citizens, society and state from external and internal threats in the context of the implementation of a state policy of national security and integration into European security structures.

The security service of Ukraine should be reformed with consideration of foreign experience in the creation of systems to support state security, and contemporary development trends of such systems through:

- Granting priority to precautionary measures and preventive strategies;
- Strengthening the role of public bodies and institutes in support of security and counteraction to external and internal threats to national security in the area of state security, strengthening of cooperation with foreign states;
- Improving anti-terrorist and counterintelligence activity and the level of protection of state secrets;
- Concentrating intellectual, financial and other resources on priority directions in support of national security;
- Increasing the level of budgetary and other types of resource support to subjects the of national security sector.

Presidential Decree dated 8 April 2008 #311/2008 approved the concept of criminal justice reform. The criminal justice system was seen to be bulky, inwardly contradictory, not always scientifically reasonable and superfluously complicated. Its activity is characterised by a duplication of authorities, absence of clear determination and sharing of their competence, granting priority to tasks which are secondary, application of the unjustified and complicated formal procedures. Criminal justice bodies have an imperfect functional capability which does not support compliance with the principle of the rule of law.

The Office of Public Prosecutor in Ukraine should become the only body with the following functions in the area of criminal justice:

a) To supervise compliance with the laws by bodies which conduct operational investigations activity and pre-trial investigation;

b) To provide for criminal pursuit of a person, including advancement of prosecution, judicial guidance of pre-trial investigation and drafting of indictment;

c) To supervise compliance with the laws by bodies and institutions which execute court decisions on criminal cases and apply other measures related to the limitation of the personal freedom of citizens.

A probation service should be created within the area of responsibility of the Ministry of Justice of Ukraine so as to properly support the institute of conditional conviction and criminal punishments that rests in imposing certain limits on the realisation of the rights and freedoms by convicted persons, and the establishment of special supervision over their behaviour (in particular, imposing limitations on place of residence, prescription of forced treatment, etc.).

To increase the efficiency of pre-trial investigation bodies and eradicate the practice of concealment of reports about crimes, mechanisms supporting the clear and prompt corre-lation between the number of registered messages about crimes and quantitative composi-tion of officials from pre-trial investigation bodies should be introduced in a certain struc-tural unit in a corresponding pre-trial investigation body.

Presidential Decree dated 11 April 2008 #328/2008 acknowledged the need to take ad-ditional measures to prevent the hidden influence on courts and law enforcement authori-ties, including through granting bodies with material, financial, organisational and other do-nations. The Cabinet of Ministers of Ukraine was tasked with:

1. Drafting a law on amendments to laws of Ukraine related to the prohibition of granting donations to courts and law enforcement authorities as well as accep-tance of material, financial, organisational assistance and other donations by courts and law enforcement authorities, and submitting this to the Verkhovna Rada of Ukraine within a one-month period;

2. Providing a required volume of expenditure to support the effective activity of courts and law enforcement authorities to be included in the draft laws on the State Budget of Ukraine in 2009 and in following years, including compensation to victims and witnesses.

Presidential Decree dated 25 April 2008 #401/2008 approved the reform of the Public Penal Service Concept aimed at the introduction of European norms into the order and terms of implementation of punishment and those serving their sentences in penal institu-tions and pre-trial detention centres in compliance with the requirements of the Convention for the Protection of Human Rights and Fundamental Freedoms (1950) and implementation of recommendations of the European Committee for the Prevention of Torture or Inhuman or Degrading Treatment or Punishment. The Concept of Public Penal Service reform should provide for:

- Effective implementation of state policy in the execution of criminal punishments;
- Creation of a modern penal service which would meet the European standards, firstly, in compliance with human rights;
- Creation of a probation service as a component of the penal service;
- Effective re-socialisation of the convicted, to diminish the numbers of repeat crimes and offences;

- Strengthening of the personnel potential of the penal service to provide effective counteraction to corruption and other illegal acts among personnel;
- Improved interaction between the penal service and law enforcement authorities, other state authorities and local self-government bodies, penitentiary services of other states, and international organisations;
- Formation of sound public understanding of the importance of the penal service.

Presidential Order dated 24 December 2008 #308/2008-pn ratified the creation of a Commission for drafting the concept of reform of state security guard of the state authorities of Ukraine and public servants, and state program of reform of state security guard of state authorities of Ukraine and public servants.

Presidential Decree dated 10 February 2009 #79/2009 approved a decision to disband the state commission for reform of the Armed Forces of Ukraine, other military formations and military industrial establishment.

A draft law of Ukraine "*On amendments to the Constitution of Ukraine,*" presented by the President of Ukraine on 31 March 2009 is aimed in particular at the: systematisation, strengthening of constitutional guarantees of rights and freedoms of citizens, actual provision of their protection; realisation of effective state power based on a clear distribution of functions, improvement in the system of deterrence and counterbalance, avoidance of dualism in executive power, as well as balancing of all state mechanisms; creation of preconditions for realisation of law enforcement reform and so on.

In addition, the President of Ukraine admitted that "revolutionary changes in the organisation of activity of law enforcement authorities" was one of the priorities in state legal policy. He also emphasised the task of re-orienting these bodies from the protection afforded to them by the interests of state power to the rights of citizens, and pre-trial investigations should be deprived from accusatory manner. Contested action and judicial equality should be introduced, and the state should be provided with guarantees for criminal pursuit. The existing practice of substitution of this function by courts should be liquidated." He also called for the Ukrainian parliament to adopt a new Criminal Procedure Code[10] as soon as possible.

Further reform and activity of law enforcement authorities of Ukraine should be based on such established principles[11] aimed at:

1. Establishing the priority of rights and freedoms of citizens, and respect for human dignity.

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[10] Annual Address of the President of Ukraine Viktor Yuschenko to the Verkhovna Rada of Ukraine on the internal and external state of Ukraine in 2009 (Online resource); available at www.president.gov.ua/news/13362.html.

[11] "Ukraine in 2007: Internal and External State and Prospects of Development," Expert Report (Online resource), pp. 161–162; available at www.niss.gov.ua/book/Eks_d2007/index.htm.

2. Realising duties and responsibilities on the basis of compliance with the Constitution and effective laws of Ukraine; protecting the rights and freedoms of citizens within the limits of competence provided by the legislation on principles of their equality before the law regardless of background, language, education, religion, political convictions, official or property status and other features.

3. Complying with the principles and norms of international law, effective international agreements of Ukraine, and accordance with European legal and democratic standards, which are recommended by PACE for Ukraine's law enforcement system.

4. Complying with the rights and legal interests of local self-government bodies, enterprises, institutions, organisations and citizen associations.

5. Implementing legally assigned law enforcement and law-applying functions, preventing crimes, providing timely and adequate responses aimed at the protection of national interests in combination with successive and coordinated institutional transformations.

6. Ensuring intolerability in application, under no circumstances, of the facilities and methods of collection of information, implementation of orders, instructions or directions which conflict with effective legislation, as civil servants should bear disciplinary, administrative and criminal responsibility for illegal actions and inactivity.

7. Giving preference to professionalism, competence and devotion to business, honesty, morality and patriotism in selection and appointment to positions; clearly determining and differentiating areas of responsibility, tasks, duties and responsibilities; organising activity only on these grounds, with authorities and by methods provided by the Constitution and the laws of Ukraine.

8. Scientifically justifying institutional transformation on the basis of the use of theory and progressive experience of the state administration, rational methodologies of the realisation of administrative-organisational, human-resource and process-organisational functions of official activity management, firstly those related to the creation, maintenance and development of a control system in the organisational structures of law-enforcement authorities.

9. Combining the collective nature during decision-making and in the reform and functioning of bodies and undivided authority in the realisation, centralisation and decentralisation of authorities, transparency and publicity with the necessary level of confidentiality in the organisation of work; clearly determining the rights and personal responsibility of leaders for the results of realisation of reforms of subordinated bodies and units.

10. Coordinating the performance of assigned tasks and cooperation between the subjects of the law enforcement system and with other public authorities, local

self-government bodies, enterprises, establishments, organisations, civil servants and population in the provision of national security and law and order.

11. Equally participating and using intergovernmental systems and mechanisms of international collective security in the fight against crime in the interests of Ukraine; cooperating with foreign security bodies and law enforcement authorities on the basis of international law, corresponding treaties and agreements.

12. Preventing the use of law enforcement authorities in party, group or personal interests, preventing the influence of parties, motions and other public associations which have political goals on the reform process and activity of law enforcement authorities.

13. Encouraging respect towards democratic public control in state security and law enforcement activity, and assisting in its realisation on the basis of effective legislation.

14. Complying with freedom of information rights in relation to the activity of law enforcement authorities in combination with the nondisclosure of information which present a state, military, official and commercial secret, and confidential information which, if disclosed, can inflict harm to the national security of Ukraine, or the honour and dignity of an individual or violate his/her legal rights, except cases provided in legislation in the interests of justice.

15. Ensuring responsibility before the people of Ukraine for its activity.

16. Supporting and maintaining corresponding status of law-enforcement employees, according to which they enjoy political, socio-economic and personal rights, freedoms and privileges in accordance with the effective legislation of Ukraine; they are public agents, operate on behalf of the state and are under its protection while they perform assigned law-enforcement or law-applying tasks; inviolability of personality, honour and dignity is guarded by the legislation of Ukraine.

17. Considering the following framework, terms and conditions in the law enforcement reform process:

    - Obligatory functional and structural 'scope' of all tasks and duties of bodies, their functional specialisation; creation of flexible mechanisms of timely redistribution of forces and resources on priority directions of activity;

    - Removal of duplication of tasks and organisational structures of bodies on different directions and levels of functional activity;

    - Support for the effectiveness of administrative structures.

The realisation of these conceptual principles provides for the:

- Revision and amendment of effective legislation of Ukraine (the Constitution of Ukraine, the laws of Ukraine which determine and organise the activity of law

enforcement authorities);

- Legal determination of functions, and criteria required to assess law enforcement activity;
- Revision and adoption of the Criminal Procedure Code of Ukraine, other laws of Ukraine, and decriminalisation of minor crimes;
- Development of a system and mechanisms of democratic civil control of the law enforcement authorities of the state.

In summary, law enforcement reform should be clearly coordinated with other strategic tasks of the state, in particular, with judicial reform.

<u>**Section 4**</u>

Approaching European Standards in Ukraine's State Border Guard System: Pro et Contra[1]

Sergiy Cherevatiy and Serhiy Yakimets

Priority tasks in the consolidation of the Ukrainian state system included support for the reform of the state border guard system, and the development and manning of its Border Guard troops. The solution to these important problems was found in the direction of the General of the Army V.O. Gubenko, the first Commander of the Border Guard troops of Ukraine.

An analysis of the genesis of Ukraine's Border Guard troops system reveals five basic stages.

The *first stage (1991 – early 1992)* was aimed at resolving urgent problems related to the creation of the Border Guard troops of Ukraine, and the organisation of state border guards in the areas of the external border of the former USSR, the development of a legal and regulatory framework for their functioning, manning and passing of service, and the creation and establishment of an organisational structure for the State Border Guard Committee.

One of the first legislative acts were the laws "On the legal succession of Ukraine,"[2] and "On the state borders of Ukraine."[3] It should be emphasised that the Law of Ukraine "On the state borders of Ukraine" was and remains the legislative act of Ukraine which implemented a system of international law regulations to the national legislation (UN Conventions for the Naval Law of 1982, and so on) in relation to the delineation of the territory and water area of the state, the regime of the state borders of Ukraine and basic principles of their protection. Unlike this law, the Law of Ukraine "On the Border Guard Troops of

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1   Pro and con (Lat.).
2   The Law of Ukraine "On the Legal Succession of Ukraine," dated 12 September 1991, *Bulletin of the Verkhovna Rada* 46 (1991), p. 617.
3   The Law "On the State Borders of Ukraine," dated 4 November 1991, *Bulletin of the Verkhovna Rada* 2 (1992), p. 5.

Ukraine"[4] did not fully meet existing public relations when it was adopted; however, it practically did not obstruct the organisation of Ukraine's border guards which provided territorial sovereignty of the young state. The Law of Ukraine "On the Border Guard Troops of Ukraine" tasked this military formation with 12 responsibilities where only one of them was of a military nature – to resist aggression to the territory of Ukraine by armed formations and stop armed provocations on the state boundary. The other 11 responsibilities had a law enforcement and legal nature – to avert and prevent the crossing of the state boundary by persons and vehicles beyond border checkpoints or through other illegal ways; to detect and detain frontier violators; to provide entry of persons and vehicles through the state border; to support the fulfilment of commitments set in the international agreements of Ukraine on the regime of the state border; to control maintenance of the border regime; to control compliance of the order of navigation, stay in territorial waters and internal waters of Ukraine by all non-military ships and warships, and so on. The Law of Ukraine "On the subordination of the Border Guard Troops of Ukraine" and the Verkhovna Rada Decree "On the order of military, logistic and financial support of the Border Guard Troops of Ukraine" were ratified and became the basis for the process of troop reorganisation and border arrangement. The Border Guard troops of Ukraine were formed on the basis of units and formations of the Western frontier district which was deployed on the territory of Ukraine and guarded a state boundary and economic area of the former USSR.

125 frontier posts, 56 check points, 25 ships, 85 patrol boats, 4 aircraft and 11 helicopters were engaged in guarding the state boundary of Ukraine. The number of personnel was 16,799 persons, including officers – 2,156, warrant officers and midshipmen – 3,154, sergeants and petty officers – 2,601, and soldiers and sailors – 8,888. Troops were equipped with small arms, 80 BTR-60PB, 1,693 automotive and special engineering vehicles.

On 12 January 1992, servicemen of the Border Guard troops swore allegiance to the people of Ukraine.

The *second stage (9 March 1992 – late 1993)*: the Border Guard troops of Ukraine completed the takeover of the state boundary of Ukraine at the end of 1992.[5] The Law of Ukraine "On the operational investigations activity," and Regulations on the State Committee for Ukraine's state border guards were drafted and adopted in 1992. Approximately 40 orders and resolutions established the legal framework for the provision of state security, inviolability of state borders, and vital functions of the Border Guard troops were also adopted.

An agreement on the establishment of border checkpoints with the Republic of Belarus and Republic of Poland was concluded in 1992, in 1993 with the Hungarian Republic, in 1995 – with the Russian Federation and Slovakia, in 1996 with Romania (local checkpoints), and in 1997 with the Republic of Moldova. Agreements for mutual travelling of citi-

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4   The Law "On the Border Guard Troops of Ukraine," dated 4 November 1991, *Bulletin of the Verkhovna Rada* 2 (1992), p. 7. With amendments dated 7 March 2002, *VRB* 33 (2002).

5   Official website of the State Border Guard Service of Ukraine, www.pvu.gov.ua.

zens were also concluded. Aspiring to develop good-neighbourly relations with neighbouring countries, agreements for organising joint control at checkpoints on Ukraine's borders with Russia, Belarus, Moldova and Poland were also concluded.

The State Border Guard Committee and the South-Eastern, North-Western and Southern Border Guard Troop Departments were formed in 1993. 10 border control detachments were established at 120 frontier posts; they provide for the organisation of border control on Ukraine's borders with Moldova, Russia, and Belarus, support maritime surveillance efforts, and provide legislative support for the development of the border and establishment of the troops.[6]

The border guard regional departments were reorganised and their duties, responsibilities and functions were extended. Since April 1993, maritime units have been organising the protection and control of the territorial, inland waters and economic zone in the Black Sea basin. A squadron of ships was additionally formed from the military units based in Kerch. Detached aviation squadrons were formed in Lutsk and Kharkiv to provide operations support to airmobile actions of troops. Partial changes were brought in the organisational structure of 23 units and formations.

The *third stage (January 1994 – late 1999)*: implementation of measures specified in a long-term integrated program of the establishment of Ukraine's state borders ratified by a Presidential Decree dated 16 December 1993 #596/93;[7] forming and approving the ideology of state border guards and the Border Guard troops; and the creation of a system of control and protection of border areas.

The legal registration of Ukraine's borders proceeded in the 1994. The following agreements were set up: "On the legal regime of the Ukrainian-Polish state borders," "On the cooperation and mutual assistance on frontier issues;" "On the joint Ukrainian-Slovakian state borders;" and "On the regime of the Ukrainian-Slovakian state borders, cooperation and mutual assistance on frontier issues." Agreements with Poland, Slovakia and Hungary (intergovernmental) were also established: "On the border checkpoints across the state borders," "On the reception and handover of persons across joint borders," and "On the simplified crossing of borders by citizens who live in frontier areas."

An Operational Registration and Information Centre was established on the basis of 'Kyiv' JCP in 1994. In 2000, the central laboratory of the Border Guard troops of Ukraine was created on the basis of the same JCP.

Seven additional checkpoints were opened to support border control activities (the total number stands at 248, including 135 – international, 87 – intergovernmental, 26 – local). 36 border control units were established at Ukraine's airports in accordance with the instruction of the government of Ukraine.

Detached aviation squadrons were formed and deployed in the Lviv and Kharkiv regions to promptly react to situational changes, conduct airborne surveillance and reserve manoeuvres. Fundamentally, this created a new organisational structure with various

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[6] The Law "On the Border Guard Troops of Ukraine."
[7] The Decree of the President of Ukraine #596/93, dated 16 December 1993.

forces and capabilities—the Odessa maritime frontier detachment which united land and maritime border guards—was brought into action so as to create a joint maritime situation control system. In addition, the Odessa aviation squadron was enhanced, the Kerch and Izmayil detached brigades of frontier watch boats were formed and deployed.

In 1995, Ukraine drafted a set of legislative acts for the state border guards and sovereignty rights for the exceptional (maritime) economic zone, the fight against illegal migration and joint actions of the Border Guard troops and law enforcement authorities of Ukraine in strengthening the state border guards.

The number of operations jointly conducted with interacting law enforcement institutions, State Customs Service, and border guard agencies from neighbouring countries increased twice in 1997 resulting in the detention of 20% of violators and 14% of illegal migrants, 51% of weapons, 54% of drug raw material, and 36% of smuggled goods. Preparatory work for guards of the Sea of Azov was also conducted.

A perspective approach to the contract manning of troops was implemented in 1997.

A process of delimitation of land state borders was established between Ukraine and the Russian Federation in 1998.

Definitive progress took place in the complete delimitation of the Ukrainian-Moldavian area of state boundary.

The delimitation of the state boundary with the Republic of Belarus was completed in 1998. The contractual and legal registration of the border with Romania also commenced at this time. 1998 also saw strengthened cooperation with border guard departments from Lithuania, Latvia, Germany, France, the US and Turkey as well as with a range of influential international organisations.

Additional measures to meet the requirements of the Decree of the Cabinet of Ministers of Ukraine "On the border regime" and "On the controlled frontier districts" were taken so as to provide proper order at the border, detect potential violators of the state boundary on rearward borders jointly with interested executive bodies.

In 2000, a regional administration agency was formed, made up of a minimum required number of forces and capabilities, originating to a large extent from the South of Ukraine—in the direction of the Autonomous Republic of Crimea—taking into account the specifics of the Southern region of Ukraine, and the difficulty of tasks assigned to the troops in Crimea.

The *fourth stage (early 2000 – March 2003)* was characterised by a review of the concept of Ukraine's border guards. Research projects are developing ways to effectively resolve border problems in the context of the realisation of Ukraine's European choice. In 2001, an analytical project titled "Assistance to the Implementation of an Effective Policy of Ukraine's Borders" was conducted, within which two roundtables were held: "Borders of Europe – Borders of Ukraine: Through Joint Interests to Joint Security" (17 February 2001) and "Borders of Ukraine in the System of National Interests" (25 December 2001).

Ukraine also radically changed the principles of organisation of mutual relations between border sub-units, units and formations and the labour teams of enterprises, organisations and institutions with different forms of ownership in accordance with the require-

ments of the Presidential Decree "On the improvement of organization of patronage over the Border Guard troops" ratified in May 2000.

In the framework of the "Centre of the world, conversion and foreign policy of Ukraine" created in 1992 with the support from Freedom House "Partnership and reforms in Ukraine" programme (with the assistance of the US Agency of International Development (USAID), "Assistance to implement an effective policy of borders of Ukraine" project) was devised in 2001 with the initiators discerning that borders of the state are not barriers between a country and the region, but a factor of integration in the international community. The Western border of Ukraine can become the only real protected line from Vladivostok to Lisbon in the context of the expansion of the European Union (EU). It creates the threat of maximum compression of this border as a result of a realisation of EU security interests, and the final split of the Central-Eastern European region in parts involved with and withdrawing from Europe. The leading idea of the project was a thesis about the fundamental compatibility of interests and aims of the EU, EU candidates and Ukraine during the development of modes of international communication in Europe.

In 2000, 14 border guard and joint operations reduced the dynamics and specific character of smuggling and other criminal activity.

A delimitation of the border by 33% was achieved – border with the Republic of Belarus.

The President of Ukraine L.D. Kuchma supported State Border Guard Committee proposals to reform the Border Guard troops of Ukraine into a law enforcement authority with corresponding duties and responsibilities. At the same time, Kuchma took drastic measures to stop smuggling activity.[8]

The Eastern and North-Eastern borders became priorities. In 2001, the Decree of the President of Ukraine "On the symbols of the Border Guard troops of Ukraine" was issued.

In April 2002, an agenda item "On the strengthening of security of Ukraine's state border in the context of fighting against international terrorism, illegal migration and drug trafficking" was examined at the meeting of the National Security and Defence Council of Ukraine chaired by Kuchma as its chairman.

The Northern Border Group troop division was created in 2002 and commenced duty on 1 January 2003.

The solemn signing of provisions for the demarcation of borders and opening of the first demarcation sign took place at the "Mamaliga (Ukraine) and Kryva (Republic of Moldova)" checkpoint on 29 January 2003. An agreement between Ukraine and the Russian Federation of the Ukrainian-Russian state borders (delimitation of land line of border) was signed on the same day.

The legal and regulatory framework has been developed and continuously improved in independent Ukraine. The Verkhovna Rada Decree dated 24 August 1991 #1431 "On the military formations in Ukraine" and the Decree of the Verkhovna Rada's Presidium dated

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30 August 1991 #1464 "On the subordination of border guard troops deployed on the territory of Ukraine" approve that all military units of the USSR border guard troops and their command and control bodies together with armaments, equipment and logistic facilities deployed on Ukraine's territory are transferred under Ukraine's authority. The commander of the Border Guard troops of Ukraine is approved by the Verkhovna Rada of Ukraine and is subordinated to the Cabinet of Ministers.

The *fifth stage (27 March 2003 until the present day)*: The gradual reform of the Border Guard troops of Ukraine into the State Border Guard Service of Ukraine took place and a transformation of the border guard institution from a military structure to a law enforcement authority with special functions. Border Guard reform was approved by the "Program of actions aimed at the regime maintenance of state borders of Ukraine and cross-border regime, development of the Border Guard troops of Ukraine for the period until 2005" and ratified by a Presidential Decree dated 16 November 2000. To implement the program, the State Committee adopted the Law "On the State Border Guard Service of Ukraine" on 3 April 2003. The law came into effect on 1 August 2003.

A turning point in reform efforts was the increase in the numeric strength of the Border Guard troops to 45,000 persons and its further increase to 50,000 persons on 30 December 2004, as well as the establishment of regional administration bodies of the State Border Guard Service.

The essence of reform efforts rests in: changes in its legal status; legislative determination of new tasks, functions and authorities; organisational and structural transformation; transformation of border guard technologies; and improvements in training and logistic systems.

In cooperation with corresponding structural sub-units from the Verkhovna Rada and the government of Ukraine, border guard servicemen have conducted significant improvements in legislation. As a result, the legal environment supported the activity of this governmental department; transition from the military formation to law enforcement authority whereby its special status was fixed; and the functions and authorities of the border guard servicemen were considerably extended in the area of law enforcement.

The main task of the State Border Guard Service is to secure the inviolability of state borders and protect the sovereign rights of Ukraine in its exclusive (maritime) economic zone. Among other tasks, one of the most important functions of Ukraine's border guards is to coordinate the activity of all public authorities on the borders and at checkpoints.

The creation of the State Border Guard Service as a law enforcement authority with special functions supported an increase in the level of security of Ukraine's national interests on the state borders.

The Law of Ukraine "On the amendments to some legislative acts of Ukraine in connection with the formation of the State Border Guard Service of Ukraine" was drafted and adopted so as to provide effective application of the Law of Ukraine "On the State Border Guard Service of Ukraine" and to avoid divergence with other effective legal acts. The law brought amendments to five Codes of Ukraine and 43 Laws of Ukraine.

On 4 August 2003, Presidential Decree #797 approved provisions for the Administration of the State Border Guard Service of Ukraine which is basically tasked to implement state policy in the guarding and protection of the state border, participation in the development and implementation of general principles of legal registration and protection of state borders and sovereign rights of Ukraine in its exclusive (maritime) economic zone.

New structural subunits such as departments, operational, information and analytical and inspection agencies were created to support the introduction of organisational and structural changes in the Administration of the State Border Guard Service. Substantial changes took place in the structure of operational activity bodies and they assumed greater importance in the new border guard model. The quantity of administrative links and logistic structures was reduced and the basic potential of forces and resources was focused on border guard units. This new system was characterised by a drastic improvement of border management technologies and the creation of a modern multilevel model of border guards.[9]

The basis of border guards official activity is based on: the development of a network of border guard service inspectors; frontier patrols; increased operational components in the service; speed and mobility, deployment of reserves and mobile units; active work with the local population, public associations; hardware support, re-equipment with modern guard technical means and facilities; development of information databases, and improvement in information exchange networks.

The EU is a conservative structure in the context of border protection: it contributes to strengthening the 'Eastern' and 'Western' borders of Ukraine. The "Program of actions aimed at maintenance of the regime of state borders and development of the Border Guard troops of Ukraine up to 2005" presented in Brussels on 31 January 2002 emphasised this fact. This program provided the basis for the allocation of 15 million Euro to Ukraine through the TASIC program: 10 million Euro – to equip the checkpoint "Rave-Ruska" on the Ukrainian-Polish border and five million Euro – for technical assistance along other areas of border. Checkpoints and the border guard servicemen of Ukraine are also equipped with the 'West's' assistance: Germany annually allocates 0.5 million Euros to equip crossing points on the Ukrainian border; in 2002, the US transferred assistance in the amount of 495 million Euro to the Ukrainian border guard service.

At this time, Ukrainian strategy reviewed the role and place of the Border Guard troops in relation to the country's support for the EU. A legal framework to reorganise the State Border Guard Committee into a law enforcement structure marked the completion of Ukraine's new border management structure.

Control-protective measures on the Eastern and North-Eastern borders were prioritised in the state guard plans. In April 2002, the NSDC considered an agenda focused "On the strengthening of security of the state borders of Ukraine in the context of fighting international terrorism, illegal migration and drug trafficking." The Northern border guard troop di-

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[9]   The *White Book of the State Border Guard Service of Ukraine.*

vision was also formed in 2002. Delimitation of the border at 33% was achieved from a general length, including 100% of the borders with the Republic of Belarus. The signing of the "Provisions for the demarcation of borders between Ukraine and Moldova" took place on 29 January 2003. An agreement between Ukraine and the Russian Federation on the Ukrainian-Russian state borders, i.e. the delimitation of land borders, was signed on the same day.

A Presidential Decree dated 19 June 2006 #546/2006 ratified the Concept of Development of the State Border Guard Service of Ukraine for the period until 2015, and the Cabinet of Ministers of Ukraine approved an integrated program of reconstruction and development of the state borders until 2015.

Section 5

Transformation of Views on Information Security of Ukraine in the Age of Globalisation

Mykola Prisyazhnyuk

Globalisation has been realised in the past two decades with the transition from the nation-state form of social existence to a globalised democratic civil society where the integrated effective management of global socio-economic development is increasing. The basic subjects of globalisation are not states but transnational economic agents – corporations, banks and international organisations, and its basic tendencies are characterised by financial and economic globalisation and media informatisation.

Globalisation processes are determining the fate of humanity. Globalisation of the 'technosphere' has resulted in the formation of a worldwide technological and information space which is supported by global transport and telecommunication networks. Economic globalisation, as a phenomenon, has its own regularities, tendencies, functioning and development mechanisms. Geopolitical globalisation first emerged during the era of two opposing centres of gravity – two geopolitical blocks headed by the USSR and the US. After the collapse of the socialism system and the disintegration of the former Soviet Union, the centre of geopolitical influence narrowed, and a mono-centric world was led by the US which declared almost the whole world as the area of its strategic interest.

Socio-cultural globalisation in the fields of science, culture, education, ethics and ideology is based on information technologies, telecommunications and the Internet. These information processes have generated a new wave of unification and standardisation.

Globalisation processes are indisputable elements of change in the modern world which is submerged in a post-industrial information model. While globalisation provides new opportunities, it also hides serious dangers and brings new risks and threats.

Some of the *negative consequences of globalisation include the following*:

1. Danger of transfer of intergovernmental contradictions and conflicts to the information space; development of information confrontation, application of information weapons, beginning of information wars.

2. New type of disasters—info-genetic—as a result of failures or violations in global information and telecommunication networks.

3. Possible creation of global information infrastructure by criminal and terrorist organisations which are difficult to be controlled.

4. Development of new types of cybercrime, including organised cybercrime.

5. Possible accumulation of the personal data of individuals for criminal purposes.

6. Possible monopolisation of mass communication means and manipulation of public consciousness.

In Ukraine, there is a tendency of growing dependence of separate sectors of the national economy on a considerable volume of different information streams. Changes in the exchange of different types of information are supported by the development of information and communication technologies which facilitates the prompt and simultaneous performance of tasks using various information technologies. However, the permanent complication of risks creates the need for information security (IS).

An information society, where Ukraine is unavoidably heading to, transforms not simply the information status (information, data, knowledge) but also increases possibilities for the application of information by criminal formations with antisocial intentions.

The IS problem has acquired an international, comprehensive and interdisciplinary nature in the climate of globalisation, and its ideal (in the context of guarantees) solution directly depends on the level of perfection of a corresponding scientific-methodological basis.

The IS problem is determined by modern tendencies in the information area, computer technologies, and the establishment of a new type of society and economy that is characterised by economists and sociologists in different ways. American sociologist R. Crowford views modern society as a 'knowledge society' where knowledge leads the way; new knowledge leads to the appearance of new technologies, which cause economic changes and socio-political transformation that result in a new vision of the world.[1]

Regardless of the variety of terms which determine modern transformations in the world economy, all of them, in any case, specify globalism of occurring processes and changes and the outstanding value of information, knowledge and information technologies.

Information becomes a unique and eternal resource for human beings. Its uniqueness is only increasing in the modern environment. The basic purpose and importance of information for humans, society, and economies rests in its use and exchange.

Thus, information can be presented as a:

•   Source of knowledge and skills;

•   Source of information about events and phenomena;

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[1]   R. Crawford, *In the Era of Human Capital: The Emergence of Talent, Intelligence, and Knowledge as the Worldwide Economic Force and What It Means to Managers and Investors* (N.Y.: Harper Business, 1999).

- Means for the establishment of systems;
- Resource for decision-making;
- Source of negative influence on society and human beings;
- Object of intellectual property; a commodity.

Information obtains value during exchange as it passes from one subject to another in a different form. Therefore, the currency of the IS problem is beyond a doubt.

If IS scientific and technical aspects are mainly related to the tasks of information protection and protection of technical systems from information, then the humanitarian and legal aspects are connected to the protection of a person and society from information and to IS regulatory and legal features.

The development of global society informatisation processes has generated a new global socio-technological problem – the problem of information security for people and society. This problem can be explained in the following way: Many major human, societal and state interests are largely determined by the state of the surrounding information area. Therefore, purposeful or unintentional influence on the information area by external or internal sources can inflict serious damage on these interests and pose a threat to the safety and security of human beings and society.

Information security widely means the state of security of an information environment that supports its establishment and the development of citizens, organisations and the state.

The realisation of the connection between the state of the information environment and possibilities in achievement of major interests of a man and society occurred during the last decade. Nevertheless, many countries, including Ukraine, developed IS national doctrines and concepts of state policy for IS support.

It should be noted that problems of IS support for the state, society and individuals are largely interrelated, although it is natural that their basic interests are substantially different.

The interests of *a person* rest in the:

- Support of constitutional rights and freedoms of a man for the collection, storage, use and distribution of information;
- Prevention of unauthorised interference with the content, processing, transmission and use of personal data;
- Safety and security from negative information and psychological influence.

The interests of *society* rest in the:

- Maintenance and increase of spiritual, cultural and moral values of the Ukrainian people;
- Securing social and political stability, inter-ethnic and inter-confessional consent;
- Establishment and development of democratic civil society institutions.

The interests of *the state* rest in the:

- Prevention of information dependence, information blockade of Ukraine, information expansion by other states and international structures;
- Effective interaction of public authorities and civil society institutes in the development, implementation and correction of state information policy;
- Establishment and development of an information society;
- Securing economic and scientific-technological development of Ukraine;
- Forming a positive image of Ukraine;
- Integration into the world information space.

The aggregate of the abovementioned major interests of an individual, society and the state forms the *national interests*, which determine a primary purpose and task of the country in IS support when projected on the information area of the society.

Article 17 of the Constitution of Ukraine, approved at the fifth session of the Verkhovna Rada of Ukraine on 28 June 1996, states: "Protection of the sovereignty and territorial integrity of Ukraine, provision of its economic and information security are the major functions of the state and the matter of all Ukrainian people."

Consequences of Influence on the Information Area, Purpose and Objects of Information Security

The main information threat to national security is the threat of other influences on the country's information infrastructure, information resources, society, consciousness, subconsciousness of a personality so as to establish a desirable (for the other side) system of values, views, interests and decisions in vital areas of public and governmental activity and manage their behaviour and development.

The Information Security Doctrine of Ukraine determines the actual and potential threats to the information security, which can be divided into external and internal threats.

In foreign policy:

- Distribution of distorted, unreliable and preconceived information in the global information space that harms the national interests of Ukraine;
- Display of computer crimes and cyber terrorism that threaten the permanent and safe functioning of national information and telecommunication systems;
- The effects of external negative information on public consciousness through mass media and the Internet.

In state security:

- Negative information effects aimed at undermining the constitutional order, sovereignty, territorial integrity and inviolability of Ukraine's borders;

- Use of mass media and the Internet for propaganda of separatism by ethnic, verbal, religious and other features;
- Unauthorised access to the information resources of public authorities;
- Disclosure of information which presents state and other secrets as provided by the law, and confidential information which is state property.

In the area of defence:

- Breach of the set order of collection, processing, storage and transfer of restricted information within military command bodies and at defence industry enterprises;
- Unauthorised access to information resources, illegal collection and use of defence-related information;
- Implementation of programmed mathematical measures so as to disturb the functioning of defence and defence-related information systems of Ukraine;
- Interception of information in telecommunication networks, electronic jamming of communication and management means;
- Information-psychological influence on the population of Ukraine, including on military personnel so as to decrease the level of their readiness and undermine the image of military service.

In domestic policy:

- Insufficient development of civil society institutes, imperfection of the party-political system, opacity of political and public activity that creates pre-conditions for the limitation of freedom of speech, and the manipulation of public consciousness;
- Negative information effects on individual and public consciousness, including those using special means and facilities;
- Distribution of distorted, unreliable and preconceived information by the subjects of information activity.

In the area of the economy:

- Lag of national science-intensive and high-technological productions, especially in telecommunications and technologies;
- Insufficient level of informatisation of the economy, in particular the credit-financial system, industry, agriculture, public purchases;
- Unauthorised access, violation of the set order of work with information resources in industries of the national economy, and distortion of information within these resources;
- Application of unlicensed and unregistered software, data processing resources and facilities;

- Insufficient level of development of national information infrastructure.

In social and humanitarian areas:

- Ukraine's lag from developed states in the level of informatisation of social and humanitarian areas, firstly in the areas of education, health care, public welfare and culture;
- Compliance with the rights of individuals and citizens for the receipt of information needed to protect their socio-economic rights;
- Mass media's distribution of values and way of life unusual to Ukrainian cultural traditions, cult of violence, cruelty, pornography, disrespect to individuals and national dignity;
- Tendency to exclude Ukrainian artistic work, folk traditions and forms of leisure from information space and youth culture;
- Weakening of social and political, inter-ethnic and inter-confessional unity of society;
- Lagging behind developed states in the development of the Ukrainian film and book industries and library business.

In the area of science and technology:

- Decline of scientific potential in informatisation and communications;
- Low competitiveness of national information products on the world market;
- Outflow of brainpower and subjects of intellectual property abroad;
- Insufficient protection against unauthorised access to information as a result of the use of foreign information technologies and means;
- Uncontrolled expansion of modern information technologies that, firstly, create the pre-conditions for technological dependence of Ukraine.

In the environmental area:

1. Concealment, ill-timed provision of information or provision of unreliable information to the population about environmental emergencies or man-made and natural emergencies;
2. Insufficient reliability of information and telecommunication systems for the collection, processing and transfer of information in conditions of emergencies;
3. Low level of informatisation of public authorities that does not allow for prompt control or analysis of the state of potentially dangerous objects and territories, early forecasting and emergency responses.

Possible consequences of the abovementioned external and internal threats on the information space can contribute to the following negative results: *In terms of geopolitics and international cooperation* – they can result in the loss of the international image of Ukraine

as one of the leading states in sciences, education and technology, as well as a loss of leadership in scientific and technical progress. As a result, the possibility of influencing the development of world geopolitical processes, its equal participation in international differentiation of labor and use of international market of information products and services declines; major political, economic and other decisions, where the international image of the state has decisive meaning, will be taken with greater difficulty.

1. *In terms of the socio-economic development* – A tendency to slow down scientific and technical progress and shift to the use of highly efficient, advanced technologies, which will lead to a deceleration of economic development, decline in the quality of living and living standards, and an increase in social tension.

2. *In the area of state administration* – discrediting of public and local self-government bodies, creation of artificial difficulties in the maintenance of their normal functioning, as well as an imbalance of interests of individuals, society and the state that can provoke social, national and religious conflicts in society, strikes and mass disorder.

3. In terms of the development of *culture*, *education and spirituality* of society – loss of cultural heritage and national traditions, influence of foreign ideology and moral values, display of spiritual impoverishment and immorality, and a loss of national consciousness can result from information threats.

4. In the area of *defence capability and national security*, the following consequences can be observed:

   - Interruption in the system of command and control of troops, armaments and military equipment;
   - Decline in the technological development of the defence industry;
   - Decline in the moral spirit of the Armed Forces' personnel and civil workers in defence enterprises.

It is not difficult to conceive how the above listed potential consequences might seriously impact on the life and activity of every citizen of the country. That is why support of IS should become the concern of all individuals in society. First of all, it should be clearly formulated and regulated by the legislation of Ukraine and reflected in the education system and by the media.

Information security of the country should be ensured primarily:

- To protect national interests in the conditions of greater globalisation of many information processes, the establishment of world information networks, and the aspirations of the US and other developed countries to dominate in the information area;

- To provide public and management authorities, enterprises and citizens of the country with uninterrupted, complete and timely information necessary for their activity;

- To prevent the violation of integrity, storage and illegal use of information resources;

- To support the practical realisation of rights for citizens, organisations and the state to receive, distribute and use information.

It is important to correctly determine the objects of information security so as to achieve IS support aims. Such objects include:

- Information resources containing confidential information (secret, restricted or commercial secret), as well as open source information and scientific knowledge;

- Information infrastructure of society (communications and information networks, data analysis and processing centres, information protection systems and facilities);

- The system of generation, distribution and use of information resources in the country;

- The system of establishment of public consciousness which is based on mass media;

- Rights of citizens, legal entities and the state for the receipt, distribution and use of information, as well as the protection of confidential information and intellectual property.

Basic Problems of Information Security in Ukraine

The problem of security in relation to the use of information had special significance in Ukraine with the establishment of independence. The country's transition from information isolation in the period of the USSR's existence to information openness dipped Ukrainian society in the world information processes which require forming modern views on the role and place of information component in all areas of vital activity. One of the major problems of security in the use of information is to support the administrative activity of public authorities. An overwhelming majority of decisions taken by the state structures have an information basis.

Ukraine has recently suffered from information attacks, in particular in the context of the country's gas wars with Russia. But Ukraine's problem exists rather in that this space is not practically filled with high-quality information of its own production rather than in the openness of its information space. National officials are unable to normally formulate, and defend Ukraine's official position in problems of its policy, in particular in foreign policy. Practically speaking, there is an absolute absence of reforms in the country and lack of adequate coverage of Ukraine as a state for its South-Eastern areas makes the population of these regions the adherents of Russian Federation policy.

However, nobody would coordinate the official position of different departments and generate adequate responses to information attacks in Ukraine.

The adopted "Doctrine of Information Security of Ukraine" and the draft Law of Ukraine "On the Concept of the State Information Policy," submitted to the Verkhovna Rada of Ukraine, are the documents to be 'exposed' in the range of laws and legal acts which the Parliament, the Cabinet of Ministers and other executive bodies should be able to adopt and supplement rather with real mechanisms of Ukraine's information policy. If these bodies could manage to achieve this then a result could be observed within three to five years.

Today, the information area becomes as important component of public life as economic, foreign policy, defence, law-enforcement and other areas. It is predefined, first of all, by the following principal reasons.

Firstly, information practically grew into considerable economic resource of society following the initial appearance of computer and modern information technologies. Even one hundred years ago, the English economist A. Marshall offered to include information as the component of capital. "A considerable part of capital is folded by knowledge and organisation. Knowledge is our mightiest engine of production," he wrote in one of his works in 1890.[2] He stated that when a highly gifted man heads an enterprise, he increases his capital quickly and that a man with small abilities owning considerable capital can lose it quickly.

The combined demand shifts towards information needs which are more individualised.[3] The combined supply shifts towards an increase of manufacturing of information products and services. The information market, which grows more rapidly than the market of any other products and services, becomes considerable, and will exceed the volumes of energy and petroleum industry in the near future.

Secondly, at the same time, information has become the real social resource. It is actively used to adapt a man to life in conditions of a growing intensity of social development and to support society's timely response to new challenges. Modern communication and data processing creates fundamentally new conditions for the existence of humanity that has stipulated the appearance of a grandiose project of integration of national information and telecommunication systems into the global information infrastructure. Implementation of the project will allow human beings to communicate with one another and access information regardless of location.

Thirdly, the introduction of modern information technologies in all areas of public life has considerably increased society's dependence on security, and every person's dependence on the reliability of information infrastructure, authenticity of used information, level of its security against unauthorised modification as well as illegal access to it. It is easy to imagine the consequences of failures in the information and telecommunication control of pipeline systems, energy grids, environmentally dangerous productions, systems of satellite or railway communication. Humanity becomes hostage to information technologies and providing for their secure use.

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[2]   A. Marshall, *Principles of Political Economy* (Moscow, 1983), 1–3.

[3]   V.N. Kostyuk, *Information as a Social and Economic Resource* (Moscow, 1997).

A special role in the information area of society is played by individual, collective and mass consciousness of people which is greatly influenced by aggressive information effects that in some cases impacts on the health of citizens, destroys spiritual norms of social life, and results in the destabilisation of the socio-political situation.

The modern understanding of security in the context of registering the optimal correlation of interests of a person, society and the state highlights a new aspect of this problem – information and psychological security. The essence of the "information and psychological security" concept can be generally defined both as the state of protection of individual, collective and public psychology and, accordingly, as social subjects at different levels of community, scale, structural and functional organisation against the influence of information factors which cause dysfunctional social processes.

The scale of influence of information factors on people's mentality provides information-psychological security in modern conditions at the national level.

The information-psychological security of a person should be distinguished from the general problems of information and psychological security into independent direction by the following principal reasons.

Firstly, influence on human mentality and rates of influence are considerably growing in the context of transition to an information society (information civilisation), increase of scales and complication of content and structure of information flows and the whole information environment. It determines the need to form new mechanisms and means of survival of an individual as an active social subject in modern society.

Secondly, cooperation of human mentality in the information environment differs in qualitative ways and does not have adequate analogues in terms of information cooperation of other biological structures, technical, social and socio-technical systems.

Thirdly, the primary and central 'target' of information influence is a man/woman, his/her mentality. The normal functioning of social subjects at different levels of complication, groups and social organisations depends on individuals, their intercommunication and mutual relations – from a small group to the national population.

The major problems associated with the provision of information-psychological security include:

Firstly, this includes the development of state policy basics. Complication of the problem is greatly predefined by specific features of the object and subject of security provisions. We believe that public relations, which are related to conditioning for forming and developing the spiritual area of humans and society, and the provision of security for these processes, should largely be regulated by society independently through the establishment and support of criteria of morality, socially acceptable stereotypes of behaviour for citizens and mechanisms of public influence on the violators of rules. At the same time, the state should prevent the most dangerous effects to society in this area through public laws. Mistakes in the establishment of limits between these groups of relations lead, on the one hand, to insufficient efficiency of legal protection of a person, society and the state, deni-

gration of state authorities, and, on the other hand, to an absence of sufficient attention in the creation of public institutes which are needed to resolve the problem.

Another complication relates to improvements of the mass information system which most substantially influence individuals, groups and mass consciousness. The essence of the problem is that there are no effective mechanisms of social influence on the mass media in the interests of protection of public morality, psychological health of citizens, public tranquillity and, on the other hand, public authorities slowly form open information resources, which enables citizens to independently receive reliable and comprehensive information about the most essential events in public life, as well as the activity of state authorities in counteracting threats to the security of society and the state.

Another problem relates to the establishment of a staff training system to implement preventive activities in this area, and specific measures to ensure the necessary legal and technological support.

State Information Security Policy of Ukraine

The activity of executive bodies in the provision of Ukraine's IS should be focused on the structural combination of the activity of the state, civil society and human beings in three basic areas:

- *Information-psychology*, in particular in relation to securing constitutional rights and freedoms of a citizen, and the creation of a favourable psychological climate in the national information space for the establishment of common and national moral values;

- *Technological development*, in particular in relation to the development and innovative updating of national information resources, introduction of the newest technologies for generation, processing and distribution of information;

- *Information protection*, in particular in relation to securing confidentiality, integrity and availability of information, including technical protection of national information resources from cyber attacks.

The basic tasks of the state and society in the prevention and neutralisation of external and internal threats to IS are:

1. Creation of a legal framework to support IS for individuals, society and the state, which would form a legal basis to counter information threats. This is now available in many countries of the world. It is being gradually developed in Ukraine;

2. Implementation of special measures aimed at IS support among public authorities and local self-government bodies. There is a secure information and telecommunication system in place which is capable of resisting external and internal information threats;

3. National high-efficiency facilities, methods and systems of information protection are created and introduced in the national information and telecommunication

system, as well as the provision of reliable and uninterrupted functioning of systems in economic, financial and socio-political areas;

4. Creation and practical introduction of effective facilities, methods and systems of protection of national information resources of the country from destruction and unauthorised access; increase of reliability and storage safety.

    Thus, both national specific aspects and international experience should be taken into account. In particular, the recommendation for "Criteria of assessment of information technology security" adopted by European countries in 1991;

5. Development of domestic industry to produce modern information engineering facilities which are used to create and develop national information infrastructure, support defence industry, state administration bodies and major financial and business enterprises.

    In addition to economic efforts, the solution to this problem requires corresponding orientation of the *educational system*, science and public opinion in order to make work in this area prestigious and socially attractive. It is the only way to ensure an inflow of human resources in this area and the training of the required number of experts and researchers;

6. Development and the systematic realisation of special organisational-legal and educational measures aimed at the prevention and neutralisation of information threats in spiritual areas of social life, and the forming of public consciousness of the population in active counteraction to these threats.

These measures should foremost include:

- Open proclamation and active propaganda of the *state ideology of society*, which would be clear and acceptable to the majority of the population, taking into account the cultural and historical traditions of the country's development;

- Development and realisation of civilised forms of influence on the mass media so as to orient them to the distribution of spiritual values in society that meet the national purpose of the country and educate society on patriotism and civic duty in defending its interests.

H. Pocheptsov states in his book "Theory of communication" that it is more important for democratic society, and other modern societies, to have an 'information' picture of the world (an idea about the world) as opposed to the real world itself. The influence of the mass media acquires greater value and is one of the basic sources to form a system of socio-political options and stereotypes. Such stereotypes are used as the instrument of political struggle. They can be used to develop society by supporting the integrity of the national symbol system (national culture), or, alternatively in cases of improper use, can destroy it. It is known that any weakening of the national symbol system results in a violation

of communication harmony in society. That is why the protection of national symbols supports the protection of the information space.[4]

An example of failure or improper protection and security is provided in the example of Ukraine, especially, in 'problematic' regions such as Donets Basin and the Autonomous Republic of Crimea, where the population forms an image of the world which does not meet national requirements.

The information space can be reliably protected only through such a symbol system that is capable of spreading widely while maintaining its appeal. The absence of information about a specific country in the world information space, or its negative nature, does not positively influence foreign policy activity, or the activity of individual citizens. It fuels the need to introduce a group of measures to support IS which will assist the distribution of Ukraine's presence in the world information space. The events of the Orange Revolution assisted in the distribution of information about Ukraine, and the development of its image as a democratic country; however, it had a temporal nature. The presence of a self-weighted state strategy is needed so as to support achieved results and move forward.

The state should take *basic actions* provided in the Doctrine of the Information Security of Ukraine so as to ensure IS.

In foreign policy:

- To improve information support in state policy and the activity of Ukrainian public organisations and subjects of entrepreneurial activity abroad;
- To ensure state organisational-technical, information and resource assistance to national mass media which form a positive image of Ukraine in the world information space;
- To enhance information and elucidative activity among the population on the maintenance of Ukraine's national security in relation to its equal partnership with EU and NATO member states;
- To integrate international information and telecommunication systems and organisations on the principles of equality of rights, financial viability and maintenance of information sovereignty;
- To guarantee timely exposure to external threats to national information sovereignty and their neutralisation.

In state security:

- To involve mass media in the support of steady compliance with the constitutional rights and freedoms of individuals and citizens, protection of the constitutional order, improvement of political authorities so as to strengthen democracy, spiritual and moral principles of society; increase in the efficiency of state authorities;
- To increase the competitiveness of national information products and services;

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4   H.H. Pocheptsov, *Theory of Communications*, Reference book (Kyiv: Wakler, 2001), p. 47.

- To develop national information infrastructure on the principles of stimulation of national manufacturers and users of the newest information and telecommunication means and technologies, computer systems and networks.

In the area of defence:

- To perform systematic analysis on the application of facilities, forms and methods in information counteraction in the area of defence, and determine directions for the support of IS;
- To improve the IS legal framework and coordinate the activity of state authorities and military command bodies during the performance of tasks for IS support;
- To improve types and means of information protection against unauthorised access to information and telecommunication networks used in the command and control of forces and weapons;
- To improve forms and methods of counteracting information-psychological operations aimed at weakening the defence capacity of the state;
- To train IS experts in the area of defence.

In national policy:

- To create an effective and transparent system of public control over the activity of state authorities and local self-government bodies and public-political structures, in particular, through the creation of public television and broadcasting in Ukraine;
- To improve cooperation between state authorities and public organisations in countering efforts to limit the constitutional rights and freedoms of citizens and manipulate mass consciousness.

In the economic area:

- To support national hi-tech product manufacturers, firstly, producers of computer-telecommunication means and technologies;
- To establish a national information services industry, increase efficiency in the use of state, corporate and private information resources;
- To harmonise Ukraine's legislation on IS in the economic area with international norms and standards;
- To develop and improve information protection means and methods;
- To support the steady development of the national media market during the introduction of digital television and broadcasting in Ukraine;
- To strengthen state control over compliance with IS requirements in terms of the collection, processing, storage and transmission of statistical, financial, stock exchange, tax and customs information;
- To ensure integrated informatisation in the establishment, distribution and control of budgetary funds;

- To improve the system of statistical reporting so as to increase operation ability, authenticity and relevance of reporting information.

In the social and humanitarian areas:

- To establish and implement state policy reflecting Ukraine's cultural revival that meets the interests of the Ukrainian people and determines clear criteria and priorities in the establishment of information policy;
- To prevent monopolisation of the national information space;
- To improve the legal regulation of mass media activity so as to support activity aimed at the establishment of an optimistic moral and psychological atmosphere in society, popularisation of national cultural values, assistance to social stability and consent;
- To ensure state support of national information product manufacturers.

In the scientific and technological areas:

- To support Ukraine's technological competitiveness in informatisation and communication;
- To develop international scientific and technical cooperation in information protection in international telecommunication systems;
- To improve security and protection of intellectual property rights;
- To provide scientific-technological support to the establishment and development of an information society in Ukraine taking into account the requirements to Ukraine's IS support;
- To expand possibilities to provide citizens with access to the world information space, in particular to scientific and technical information.

In the environmental area:

- To perform comprehensive analysis of the environmental status of territories and their productive potential so as to draft an information policy in the introduction of a stable development concept;
- To apply modern aerospace, computer-telecommunication and geo-information facilities and technologies for comprehensive monitoring, prevention and timely responses to emergencies;
- To create a database of environment-friendly technologies and products, developers, manufacturers and suppliers, and results of marketing research for the environmental market;
- To increase the level of informatisation in the insurance industry so as to accumulate funds for the reimbursement of damages and losses caused by emergencies, as well as for long-term investments in actions and measures to minimise risks to vital activity and economic management.

Thus, IS-related measures should be comprehensive and directed to the corresponding orientation of public consciousness.

The establishment and implementation of a uniform state policy aimed at the protection and security of national interests against threats in the information environment, the adoption of corresponding legal acts, and the coordination of IS-related activity of state authorities will assist in bringing the Ukrainian national IS system into line with world standards.

Legal Framework for a Stable and Secure Development of Information Society

The term 'information society' should be understood as a new post-industrial socio-economic organisation with a highly developed information infrastructure which provides the possibility of impartially using intellectual resources for the stable development of the civilisation. In the 21st century, all civilised states consider the establishment of information society and equal integration as essential to the global information environment as a basis for socio-economic, political and cultural development. This is why modern states are pursuing a purposeful state policy in this area. Achievement of the indicated strategic aim is related to the creation of a required legal framework for the establishment of an information society.

Information law is recognised as a system of social norms and relations that is guarded by state power, and these norms and relations arise in the production, transformation and use of information; the processes of creation, collection, processing, accumulation, storage, search, distribution and use of information are subject to legal regulation. The existing relatively thin layer of laws in communication, telecommunication, information and informatisation enables one to talk only about the beginning of the establishment of information legislation in Ukraine, and about its uneven and unbalanced development.

Today, Ukraine's information policy is supported by the Constitution of Ukraine, the Laws of Ukraine "On the information," "On the television and broadcasting," "On the National Council for television and broadcasting," "On the printed mass media (the press) in Ukraine," "On the news agencies," "On the copyright and adjacent rights," "On the protection of consumers' rights," "On the protection of public moral," "On the state support to mass media and social protection of journalists," "On the order of coverage of activity of state authorities and local self-government bodies in Ukraine in mass media," "On the advertisement," "On the licensing of certain types of economic activity," "On the protection of economic competition," Resolutions of the Cabinet of Ministers of Ukraine dated 11 July 2007 #897 "On the approval of Provisions for the State committee of television and broadcasting of Ukraine," as well as other legal acts and regulations.

The specific features of national IS support found its reflection in the Laws of Ukraine "On the basics of the national security of Ukraine," "On the concept of the national informatisation program," "On the national informatisation program," as well as in the national security strategy of Ukraine, which is ratified by a Presidential Decree.

The Law of Ukraine "On the basics of the national security of Ukraine" firstly provided an official assessment of IS significance as an integral component of the national security of Ukraine.[5]

IS conceptual provisions are provided in the Doctrine of the Information Security of Ukraine which was ratified by Presidential Decree on 8 July 2009 #514/2009. The IS Doctrine provides guidance to IS activities. The wide range of political measures and actions are implemented in the foreign and home policy of the state on the basis of the doctrine provisions. As a logical continuation of Ukraine's national security strategy, the IS Doctrine is developed by legislative bodies and the political administration of the state. Its basic requirements are specified in legislative and other regulatory documents and highlighted in the strategy of state development in the form of state target programmes and projects. An important step in the establishment of IS in Ukraine is the draft Law of Ukraine "On the Concept of the state information policy" which was drafted by the State Television and Broadcasting Committee and approved at the meeting of the Cabinet of Ministers and submitted to the Verkhovna Rada of Ukraine on 20 June 2009 (draft law #4664). The Concept aims to provide constitutional rights for individuals to receive, collect, store and distribute information, to freely express views, including in the mass media, to support the development of civil society, its democratic institutions and, in particular, the free and unimpeded functioning of the mass media, to create a system of public broadcasting, and to assist in the development of socially responsible journalism. The Law should be realised through amendments to the effective legal and regulatory framework, in particular to the Laws of Ukraine "On the television and broadcasting," "On the printed mass media (the press) in Ukraine," "On the advertisement," "On the protection of public morale," "On the licensing of certain types of economic activity," the Code of Ukraine on administrative crimes, etc.

The Concept should be introduced through updating legislation on information and the adaptation of EU norms and standards, in particular the introduction of democratic standards in relation to access to information; provision of transparency of property relations in the mass media; establishment of order for granting the status of the mass media in web resources; introduction of effective governmental, parliamentary and public control of compliance with requirements specified by legislation on information and establishment of responsibility for its violation. The Concept also emphasises the need to modernise and reform the mass media, including the privatisation of print media; support for scientific research in media pluralism, in particular regarding the influence of new technology; assistance for the development and regulation of new information and communication technologies, in particular in relation to digital broadcasting's influence on social development.

Among others, the Concept supports the international 'Euro News' TV channel in Ukraine. It has created mechanisms to practically support these laws and other draft laws which regulate public relations in the information environment.

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[5]   The Law of Ukraine "On the Basics of the National Security of Ukraine," #964, *Bulletin of the Verkhovna Rada of Ukraine* 39 (19 June 2003), p. 351.

At present, society stands before a need to respond to new challenges of an international, national, public and personal security nature which are generated by the world's transition to an information society. The preparation and ratification of large-scale international legal agreements are controlled by the production and distribution of information technologies as a weapon, and there is continuing need to coordinate in the fight against information terrorism and computer crime, and to implement effective measures to protect the information resources which support national heritage. Intellectual property and copyright on materials distributed in the world open networks is another area of significance. Means to control the distribution of improper information and information offending public dignity over the Internet, fraudulent advertising and other materials which affect the physical, psychological and moral health of society and individuals should also be developed.

The information-legal vocabulary should be further developed to harmonise national legal systems and support informatisation, information security, systematisation and codification of information legislation as a system-making factor for the establishment and development of an information society in the contemporary conditions of globalisation.

Ukraine supports active IS cooperation in the international information policy in the framework of the NATO programme "Security through Science." This programme uses such support mechanisms in IS through:

- Grants for the establishment and strengthening of existing relations;
- Expert visits and transfer of technology;
- Creation of research centres;
- Support for research projects.

In general, cooperation between NATO and partner states in the framework of Euro-Atlantic Partnership Council (EAPC) and "Partnership for Peace" Programme (PfP) provides certain obligations for the participants in information exchange and security. Countries can participate in a mutual information exchange about actions and measures they will take or are taking to increase transparency of defence planning and budgeting in support of democratic control of the armed forces. Information security bodies should be certain that the receiving side is ready to provide protection and security in accordance with the requirements of the sending side prior to the exchange of any secret information between NATO and the PfP country.[6]

Any PfP program should be supported by ratification of the "Agreement for security between NATO and EAPC and/or PfP countries." According to this Agreement, parties agree to consult on political and security issues, extend and intensify political and defence cooperation in Europe, acknowledging that efficiency of cooperation in these areas means an exchange of 'secret' and/or restricted information between participants. The NATO Office of Security (NOS) is responsible for protecting secret information which parties ex-

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[6] K. Dmitrieva, "NATO-Ukraine Cooperation in Information Security," Online resource at http://intsecurity.org/arhiv/arhivst 26.html.

change in the framework of EAPC/PfP cooperation. Partner states inform the NATO Office of Security of which national agency has IS authorities. The Presidential Decree dated 27 January 2001 "On the State program of cooperation between Ukraine and NATO for 2001-04" (SCP-2004) defined the State committee of communication and informatisation of Ukraine as the agency responsible for the implementation of Section #5 of the Program, namely, "Cooperation in telecommunication and information systems." In addition, NATO and its partner states execute separate administrative agreements which establish standards for the mutual protection of information and the appointment of a liaison officer between the NATO Security Agency and an authorised national information security agency. In May 1998, a NATO-Ukraine Committee meeting at Foreign Ministers level resulted in the appointment of a NATO liaison officer in Kyiv so as to assist Ukraine's participation in the PfP program and improve cooperation between NATO staff and Ukrainian officers in general.

Information that is exchanged by the parties in the framework of the EAPC/PfP program is restricted and for governmental use only. That is why this information should be received by those who participate in these programs due to their service activity. Assignment of confidentiality levels to a document or a decline in the confidentiality level is the prerogative of the author. Unlike NATO information security standards identifying only four levels of security, there is no 'top secret' level in he minimum standards for processing and protecting secret information which is exchanged by parties in the framework of EAPC/PfP programmes. The volume of top secret information in NATO is limited, and additional security requirements to this confidentiality level would unreasonably complicate the rules of information exchange between NATO and partners.

The "Agreement for Security between the Government of Ukraine and North-Atlantic Treaty Organisation" ratified by the Law of Ukraine dated 12 September 2002 was a real achievement. The agreement determines the basic requirements for the exchange and security of secret or confidential information between NATO and Ukraine in the framework of EAPC/PfP programmes, and it has the potential to become the basis for the adoption of corresponding documents in further cooperation or the full integration of Ukraine in the Alliance.[7]

Conclusion

Despite these positive developments, there are problems in areas such as information support to the population and public institutions, protection of the national information space, and distribution of information about Ukraine's place in the international information space.

One perspective on IS cooperation is that Euro-Atlantic integration will facilitate Ukraine's transition to new security standards, including the application of new methodolo-

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[7]   M. Babinska, "Problems of Information Security of Ukraine," Online resource at www.pu.if.ua/inst/ndc/nato/journal/2009/2009-2.pdf.

gies and technologies which will make the country less vulnerable. Cooperation with Euro-Atlantic structures will also contribute to the distribution of information about Ukraine in the world information space as well as the establishment of a positive image of Ukraine in the world as a whole.[8]

The establishment and implementation of a single state policy for the protection of national interests against threats in information, adoption of corresponding legal acts, and co-ordination of IS activity of state authorities will gradually allow Ukraine to bring its national information security system into line with world standards.

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[8]   Ye. Marchuk, "Terrorism and National Security," Online resource at http://marchuk.kiev.ua/ua/94p.html.

Criminology Typology of Ukrainian Regions

Andriy Bova

Introduction

Regional challenges to the national security of Ukraine have been recognised at the state level. Thus, the Presidential Decree of Ukraine #105/2007 dated 12 February 2007 "On the National security strategy of Ukraine" emphasises on recent social and political developments similar to that of the country's independence in the 1991, and the urgent need for securing the national integrity and unity of the Ukrainian state. The solution to this problem is complicated by society's value system and outlook, which, *inter alia*, is predetermined by the cultural and historic differences of certain regions in Ukraine. The economic security is complicated by a range of challenges and threats, which are intensified by enhanced regional differences.

The strategic priorities of Ukraine's national security include the achievement of national unity and consolidation of society by overcoming both actual obstacles and artificial conflicts of a social, cultural, confessional, ethnic, linguistic, interregional and regional nature based on unconditional compliance with constitutional guarantees for the rights and freedoms of individuals and citizens.

Increasing state control and self-government system efficiency implies the need to consolidate all the efforts of the state authorities which are aimed at the improvement of the constitutional regulation of social relations in Ukraine, securing the balance of state-wide, regional and local interests, forming a strategic planning system, creating effective monitoring mechanisms for the purpose of timely adjustment of security policy priorities. The significant problems faced in Ukraine at the regional level include the disproportionate economic development, worsening of health and proliferation of hazardous diseases, increase in unemployment, violation of rights and development of threats to personal security. Thus, the Resolution of the Cabinet of Ministers of Ukraine #1767 "On the approval of the Integrated Program for Law Offence Prevention for 2007-09" dated 20 December 2006 provides for bringing regional programmes for criminality prevention in line with an implemented programme.

The goal of reforming the state authorities, namely in the security sector, is to improve the provision of services to citizens. Assessment of the functions exercised by law enforcement authorities and the priority areas of operations (as stipulated by the state programs) is based on the unity of analytical activities and managerial practice. The Resolution of the Cabinet of Ministers of Ukraine #106 "On the approval of the procedure for development and implementation of the State target programmes" dated 31 January 2007, *inter alia*, supports the need to secure interregional links. Furthermore, the monitoring of reform efforts requires analysts to provide a description of the aims and major characteristics of programmes.

Among important tasks of state policy there is the need to determine the quantitative and qualitative characteristics of crime in Ukraine's various administrative and territorial units, and the nature of crime in relation to social and economic development.

This study is one of the first attempts to research the influence of social and economic performance on the crime rate in the different regions of Ukraine. The experience of researching and typology breakdown of the regions was used by scientists in the field of regional economy and sociology. Statistical methods, including correlation, factorial and cluster analysis, were used in this study. The study's empiric basis was the statistical data of the statistics committee of Ukraine (namely the records for relevant years provided by the "Division of the permanent population of Ukraine in terms of gender and age" and "Statistic Yearbook of Ukraine") and the Ministry of Interior of Ukraine for 2002-06.[1]

The results of the study have both theoretical and practical significance, since criminological typology creates a necessary basis for the production of comprehensive forecast assessments in relation to the development of crime in specific regions, and the implementation of regional crime prevention programmes.

Development of criminological typology at the regional level included the following major stages:

1. Conceptual clarification of the notions and selection of the statistical social and economic performance indexes for the criminological typology;

2. Generalisation of the statistical social and economic performance indexes into smaller number of integral indexes (main components);

3. Finding conglomerations of similar regions (clusters) in terms of integral indexes and the crime rate.

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[1] The publication is a part of research paper "Peculiarities of the Crime in Regions of Ukraine" which was prepared under the supervision of the head of the research group from the Institute A.A. Bova at the State MoI research institute (Authors: I.P. Bagatenko, O.H. Kulik, I.V. Naumova, S.H. Povolotska, and H.V. Tolochko). Tables with data used in multi-statistical analysis are prepared by the senior scientific associate of the institute I.V. Naumova. The author expresses his appreciation to the leading scientific associate O.H. Kulik for his discussion of the results and valuable comments on the text.

Studying the Territorial Differences of Criminality:
A Brief Outlook

This analysis reflects regional variations and highlights peculiarities, quantitative and qualitative characteristics, study specific reasons and conditions of criminality, typology breakdown of regions and *ad hoc* forecasts. The urgency of the matter is predetermined by the need to develop programs for crime prevention subject to recent trends, as well as economic, demographic, cultural, social and psychological development inherent to a certain region.

Criminality is construed as a social and legal phenomenon including the number of crimes committed in society over a certain period of time. Criminality can be characterised by quantitative (dynamics, status) and qualitative criteria. In criminology, the problem of criminality within a certain geographical area implies both determining its peculiar features in the region and comparing a typology breakdown of the regions in terms of crime rate. When studying the peculiar features of criminality in regions, the criminological science employs the data of the social and economic statistics with respect to the demography, economy, social and cultural life of the region (as used by the regional economy and sociology of the regions), as well as data characterising the condition and dynamics of criminality (see official statistics and social polls, criminal cases investigation material, data characterising the activities of law enforcement authorities, etc.).

In Soviet and post-Soviet criminology, the peculiarities of criminality in regions were researched, *inter alia*, in terms of the following aspects: Geography of criminality (Yu.M. Antonyan, M.M. Babayev, V.N. Kudryavtsev, N.F. Kuznetsova, A.B. Sakharov, A.A. Gabiani, R.G. Gachecheladze, V.N. Somin), certain types of crimes, criminality among certain categories of population (youth, migrants) (G.B. Alaksanyan, M.M. Babayev, M.V. Korolyova, O. Antonov, R. Bulatov, A. Shesler, V. Ovchynskiy, Ye.N. Balakisheva), criminality in certain business entities (V.V. Golina, I.N. Danshin), in certain republics, cities, towns, regions (A. Lyeps, P. Bogdanov, A.M. Tsaliyev, K.Ye. Lebedev, A. Soots), and criminality in urban and rural areas (I.P. Portnov, G.I. Zabryanskiy, V.I. Gladkikh, R.A. Zhuravlyov, A.P. Mozol, V.I. Shakun). Furthermore, criminological science highlighted the methodological aspects of the criminality territorial difference problem and dynamics thereof, criminological classification of the regions, and application of relevant mathematical methods and forecasting (Yu.D. Bluvshteyn, G.I. Zabryanskiy, Ya.I. Gilinskiy, L.V. Kondratyuk, K.K. Goryainov, N.A. Belyayev, A.M. Irliyev, G.I. Volkov, V.Ye. Kotov, Ye.Ye. Raska, K.T. Rostov, V.L. Chubarev, O.G. Kulyk). Some scientists emphasised the need to develop regional criminality prevention programs (E.E. Raska, S.V. Borodin). The territorial differences of criminality has been the subject of several specialised compilations[2] and PhD theses.[3]

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[2] *Studying the Territorial Peculiarities of Violent Criminality* (Moscow, 1983); *Improving the Efficiency of the Law Enforcement Authorities' Activities Subject to the Territorial Peculiarities of the Violent Criminality* (Moscow, 1983); A. Soots, *Comparative Research of the Criminality Structure by the Regions of Estonian SSR, Theoretical Problems of Studying Territorial Differences of*

During the Soviet period in the 1970s, significant attention was paid to studying and preventing criminality in regions and oblasts. Handbooks at that time described the organisational and theoretical aspects of criminology at the regional level in detail. The 1980s saw the emergence of criminology handbooks devoted to regional issues.[4] At the time, science recognised regional criminology as a separate criminological theory. More recently, Ukrainian legal science has been attempting to define regional criminology as:

- Researching statistical indexes of criminality in the regions (criminality geography), describing the reasons of deviations thereof based on the research of the social, economic, demographic, cultural and other characteristics of the region;

- Including the competitive characteristics of the criminality condition in the various administrative and territorial units (autonomous republics, districts, regions);

- Studying and comparing urban and rural criminality and criminality in megapolises;

- Studying criminality on the territories where natural resources are being actively explored and where enterprises are built up next to powerful sources of energy or sources of raw materials, and those which are technologically interconnected (Donetsk Coal Basin) and normally characterised with inflow of human resources from other regions;

- Studying criminality in resort areas and recreational zones;

- Studying criminality in economic regions (Donetsk, Carpathian, in the South), i.e., the regions which comprise the administrative and territorial units and are grouped subject to the range of indexes;

Criminality (Tartu, 1987), pp. 30–42; *Territorial Difference of Criminality and Reasons thereof* (Compilation of Scientific Papers) (Moscow: VNIISZ Publishing House, 1988), p. 104.

3   L.A. Voloshina, "Social Reasons of Territorial Differences in Criminality," Author's abstract by the candidate of legal sciences (Moscow: All-Union Institute for Studying Reasons and Developing Measures for Criminality Prevention, 1976), 30 p.; A.V. Shevyrev, "Influence of the Social and Economic Processes on the Territorial Differences of Crimes Nature," Author's abstract of the candidate of economic sciences thesis (Moscow: USSR MoI Academy, 1983), 22 p.; G.I. Volkov, "Improving Informational Support of the Criminality Counteraction Management Based on the Studies of Territorial Differences of Criminality by the Regression Analysis Method," Author's abstract of the candidate of technical sciences thesis (Moscow: USSR MoI Academy, 1983), 21 p.; K.T. Rostov, "Methodology of the Criminality Regional Analysis in Russia," Author's abstract of the doctor of legal sciences thesis (Saint Petersburg, 1988); Yuzihanova, "Criminality Preconditioned by the Political and Economical Factors (regional criminological analysis using the example of Tyumen Oblast)," Author's abstract of the candidate of legal sciences thesis (Tyumen: Tyumen Scientific Center of Siberian Branch of Russian Academy of Sciences, 2002), p. 24.

4   M.D. Volkov, K.K. Goryainov, and L.V. Kondratyuk, *Regional Criminological Forecast*, Part 2 (Moscow: VNII of the USSR MoI, 1980), p. 80; K.K. Goryainov and A.I. Silayev, *Criminological Situation and Regional Peculiarities thereof: A Handbook* (Moscow: VNIII the USSR MoI, 1985), p. 60.

- Studying criminality in free economic zones and in areas of priority development.[5]

Currently in the Russian Federation, regional differences in criminality are being studied at the Research and Development Institute of the Ministry of Internal Affairs of the Russian Federation (V.I. Gladkikh, A.A. Kochin, S.L. Kyselyov. A.V. Denysov, G.F. Koimshidi, U. Bytsadze, P.N. Kobets, D.V. Vlasov). Pursuant to the Resolution of the government #322 dated 14 April 2009 "On the measures aimed at the implementation of the Decree of the President of the Russian Federation #825 dated 28 June 2007 "On the assessment of efficiency of the activities of executive bodies of the Russian Federation's entities" five statistical and social indexes are being subjected to monitoring as characterising safeguarding the citizens' security.

In a comprehensive criminological research using the data collected in the region of the country or republic, the major factors influencing criminality were determined. We are interested in analysing the major methodological approaches and results of regional analyses of criminality.

According to G.I. Dudarev, research on the interrelation between social and economic indexes and criminality may be conducted in two ways: 1) analysing social and economic indexes and criminality in the region (smaller group of regions joined into one group) over a period of 10 to 15 years; 2) establishing a model from a large number of regions at a certain moment in time, and analysing dependence as a dynamic process.

Criminologists have studied the statistical relation of social and economic indexes to criminality in 67 cities and towns of the Russian Federation. The analysis included criminality ratios in terms of the following groups: crimes registered according to criminal investigation data, wilful homicide and homicide attempts, and grievous bodily harm. Social and economic information about the two large groups of indexes – population and living conditions (the bulk of indexes had low values of the correlating ratios) was provided. Further, the factorial analysis resulted in distinguishing nine integral social and economic indexes: the population's educational level (two factors); employment; structure of capital investments; labor activities and labor potential of the city/town; generalised rates of population growth; potential of training specialists in higher education; and place of the city in the regional system of population settlement. During the research process, four social and economic groups of cities where differentiated. Thus, the following key conclusions were made: 1) regional differences of criminality are preconditioned by the actual differentiation in terms of levels and rates of social and economic development; 2) dependence of the criminality condition on the social and economic indexes is weakly reflected in the statistics; therefore, there is a need for new methods for the selection of indexes; 3) the great interdependence between social and economic factors makes the process of forming regression models more difficult; 4) inequalities between cities and towns require a preliminary typology breakdown; 5) for different types of cities, social and economic factors are

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5   S. Minchenko, "Methodological Aspects of Criminality Analysis in the Region," *Pravo Ukrayiny* 4 (2001), p. 117.

considered to be the system creating from the point of view of their interconnection with criminality stages.[6]

As a rule, the criminological analysis of the territorial differences of criminality includes many indexes characterising conditions, structure and dynamics, social, economic and demographic processes. Later benchmark indexes are normally generalised into integral indexes ("intensiveness of migration in rural areas," "the population growth rates," "the urbanisation level," "the urbanisation growth rate," "the regions economic development rate," and "the products sales growth rate"), using factorial analysis.[7]

Factors influencing criminality are various. Thus, for instance, V. Kondratyuk generalises these factors into four factorial complexes: 1) social discrepancies – discrepancies in the economic sphere (between needs in the labour contents and capability of satisfying them), in the social sphere (distribution and consumption of material values), insufficient development of dwelling conditions, defects of the social institutions operation, educational gaps; 2) the criminal policy, social control, law enforcement activities; 3) self-reproduction of criminality; 4) human factors (demographic, social, social-psychological, and national characteristics of the regional community). Based on the differentiated factorial complexes and classification of regions the author suggested to undertake regional forecasting of criminality.[8]

The considerable attention of Soviet criminologists was devoted to researching criminality in dynamics subject to regional differences. Thus, Yu.D. Bluvshteyn, G.I. Volkov and E.N. Mazin in terms of trends differentiated and classified five various regions in the Lithuanian SSR: 1) the cities of Republican subordination; 2) regions of intensive industrial development; industrial centres; 3) rural areas – satellites of big cities; 4) rural areas with a population concentration reforming settlements into towns and cities; and 5) non-urbanised agricultural regions.[9] The criminologists V.I. Mozerov and I.P. Portnov also took into account the peculiar features of criminality and the relevant specifics of the social and economic aspects of smaller towns, among which they distinguished: 1) cities with intensively

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6   G.I. Dudarev, "Statistical Modeling of the Regional Differences of Criminality Based on the Materials on Major Cities in the USSR," in *Improving Efficiency of the Internal Affairs Authorities Subject to Territorial Peculiarities of the Criminality* (Moscow: VNIII of the USSR MoI, 1983), pp. 922–98.

7   Volkov, "Improving Informational Support of the Criminality Counteraction Management Based on the Studies of Territorial Differences of Criminality by the Regression Analysis Method." p. 16.

8   L.V. Kondratyuk, "Regional Criminological Forecasting: Experience, Problems," in *Methodology and Methods of Forecasting in the Field of Criminological Control*, Paper by the Academy of the USSR MoI (Moscow, 1989), pp. 48–58.

9   Yu.D. Bluvshteyn, G.I. Volkov, and E.N. Mazin, "Territorial Differences of Criminality Dynamics," in *Improving Efficiency of the Law Enforcement Authorities' Activities Subject to the Territorial Peculiarities of the Criminality*, pp. 15–27.

developing industry; 2) cities with stabilised social and economic processes; and 3) small resort towns.[10]

In the practice of criminological research, a certain region may obtain qualitative characteristics (without statistical confirmation of the conclusions), predicting that certain factors adversely affect criminality rates. Thus, for example, one of the Siberian regions is characterised by regional social, economic and political factors complicating the situation: difficult situation in the business and financial sphere; brisk stratification of population in terms of property; weak social and economic protection of citizens; low quality of life of the majority of the population; unequal exploitation of the nature and labour resources. Intensive migration and territory development by foreign citizens; unequal population density on the territory; favourable climatic conditions for planting plants for drugs, availability of drug sales markets and transit routes; high concentration of persons undergoing post-sentence adaptation; high level of unemployment; increase in the level of inhabitants' legal nihilism.[11] In regional criminology research, when defining the peculiar features of criminality in regions, qualitative descriptive analysis is applied, confirming conclusions, and specific data of socio-economic and demographic statistics.[12]

Ya.I. Glinskiy, when studying the territorial differences of criminality, emphasises the need to take into account the disproportion of economic and social development; the level of social non-uniformity of population, and the unequal reflection of criminality in different regions. The information collected during the research process should reflect the general state of criminality, distribution of different forms of law offences among different social and demographic groups of the population, and the territorial (dimensional) distribution of the criminality indexes in time.[13]

When studying the peculiar features of criminality, the mapping method is worth mentioning – use of diagrammatic maps depicting certain types of criminality for the scientific analysis of the dimensional proliferation. The area mapping criminality proliferation depicts criminal events on a geographical map of the region or a country (for example, areas of organised criminal groups influence, the area of drug substances distribution, levels of social conflict, peculiar features of crime in the cities with developed industry and port cities, rural area, boundary adjacent settlements, etc.) when certain offenses are committed. Such

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[10] V.I. Mozerov and I.P. Portnov, "Peculiar Features of Criminality in the Smaller Towns," in *Improving Efficiency of the Law Enforcement Authorities' Activities Subject to the Territorial Peculiarities of the Criminality*, pp. 77–84.

[11] D.D. Nevirko, S.M. Malkov, and V.E. Shinkevich, "Criminal Situation and Urgent Problems of Counteracting Criminality in Siberian Region at the Contemporary Stage," *Gosudarstvo i Pravo* 11 (2005), p. 109.

[12] L.A. Voloshina, "Social Reasons of the Criminality Territorial Differences," Author's abstract of the candidate of legal sciences thesis (Moscow: All-Union Institute for Studying Reasons and Developing Measures for Criminality Prevention, 1976), p. 30.

[13] Ya.I. Gilinskiy, "Methodological Background for Social Research of the Territorial Differences of Criminality," in *Improving Efficiency of the Internal Affairs Authorities Subject to Territorial Peculiarities of the Criminality*, p. 106.

analysis supports the characterisation of crime centres in time and space, and the interrelation of crime, social and economic conditions and geography. It also implies studying a specific region's social structure influence on the level and nature of criminality, and regional differences. In the article by V.A. Grygoryan the essence of the mapping method is analysed in detail and dependence on alcohol consumption and a human resources flow rate in certain spheres of the business activities, the share of the male population, etc.[14]

The range of empirical research was devoted to the statistical study of the interdependencies between crime rates and the social and economic development in the regions. Such work was undertaken by criminologists in the republics of the former USSR. To this end, regressive analysis is widely used. For instance, for Lithuanian SSR in the 1970s, the most significant demographic factors influencing crime were "urbanisation levels," "migration rates in the rural areas," and "migration rates in the cities."[15] In 1969 to 1970 in Tadzhik SSR, based on the collected data a conclusion was made that criminality depends on the number of persons who previously committed crimes and the number of persons with a parasitical way of life.[16] Some works are devoted to the influence of specific factors (activities of the internal affairs authorities) on criminality.[17]

Based on the generalised statistical data from the 1970s in the Russian Federation, factors influencing criminality, namely the level of murders and theft, include: strength of law enforcement authorities (share of crimes detected), alcohol and drug abuse (alcoholism and narcotics use), social and economic features (actual income per inhabitant, stratification in terms of income and unemployment), education (average number of years spent in education), the features characterising family relations and demography (urbanisation, ethnical structure, geography (the latitude and longitude of regions).[18]

Relevant criminological studies were also undertaken in Western countries. German criminologists explained factors influencing different types of crimes (such as common theft, robbery, and violence) using four indexes: absolute poverty, welfare, social disorganisation (divorce) and geographic mobility.[19] In research concerning the districts of Rosenheim, factors comprise male gender, low educational level, single-parent family, un-

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[14] V.A. Grygoryan, "Method of Mapping Certain Social Characteristics of Criminality," *Problems Related to Crime Control* 36 (Moscow: Yur. Lit., 1982), pp. 49–54.

[15] Volkov, "Improving Informational Support of the Criminality Counteraction Management Based on the Studies of Territorial Differences of Criminality by the Regression Analysis Method," p. 20.

[16] S.E. Vitsin, *Modeling in Criminology Handbook* (Moscow: VNIII of the USSR MoI, 1973), pp. 63–64.

[17] L.V. Kondratyuk, *Improving Efficiency of the Law Enforcement Authorities' Activities Subject to the Territorial Peculiarities of the Violent Criminality*, p. 65.

[18] Yu.V. Andriyenko, "The Role of Criminality and Russian Regions," Russian Programme for Economic Studies Research Project No. 99-2521 (March 2002); Yu.V. Andriyenko, *Factors of Criminality Growth in Russia: Regional Approach*, Preprint (Moscow: Russian Economic School, 2001).

[19] T. Ohlemacher, "Eine Okologische Regressionsanalyse von Kriminalitatsziffern und Armutsraten," *Kolner Zetshcrift fur Soziologie und Sozialpsychologie* 47:4 (1995), pp. 706–26.

employment, unfavourable living conditions, and foreign citizenship of persons residing in the district.[20]

A significant finding of criminologists concerned the creation of territorial units' classification in terms of criminality and social and economic development indexes. To this end, the multi-dimensional statistics analysis methods are widely used. Thus, A.I. Silayev distinguished three stages: 1) one-dimensional classification in terms of the specific features of criminality; 2) classification based on the comprehensive indexes of criminality; and 3) qualitative interpretation of the results received. The author calls methods such as the factorial and cluster analysis and classifies regions based on the four indexes of criminality: structure, intensity, dynamics and social hazard.[21]

G.I. Zabryanskiy described two methods: 1) crime levels and the proportion of the population affected, and 2) the social and economic characteristics of the region. The author also selected the second method, researching the criminality ratio (1971-1985) in the industrial and agricultural districts. These regions are differentiated based on the value of the urban and rural population ratio.[22]

G.I. Zabryanskiy further detailed analysis related to the classification of the Russian Federation's regions. With the help of the cluster analysis (indexes such as the rise in lucrative and violent crime, and hooliganism) the criminal differentiation of the regions is assessed over a lasting period of time.[23]

Thus, in regional studies on criminality, mathematical methods are widely used (correlation, regression factorial and cluster analysis), calculation of additional (relative) ratios, ranges, mapping crimes over territory. It is worth mentioning that the statistical analysis of different criminality indexes and social and economic development often fails to produce strong links. It is preconditioned by several factors. The statistics fail to reflect the real processes in full (latent criminality) or are insufficiently responsive to regional differences. Certain indexes may have both a negative and positive influence on crime. Certain social phenomena may in some regions increase crime levels and not in others. In our research, it is assumed that crime in the regions of Ukraine may be explained with the help of integral indexes of social tension.

The methods of multidimensional statistical analysis are widely used in criminological studies. In the papers of I. Kavaci, B. Kennedy and R. Wilkinson through analysis of 15 in-

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[20] "Approach to Criminality Regional Analysis in the Federal Republic of Germany," *Crime Control Abroad* 7 (2000), p. 27.

[21] A.I. Silayev, "Methods for the Regions Criminological Classification; Improving Efficiency of the Law Enforcement Authorities' Activities Subject to the Territorial Peculiarities of the Violent Criminality" (Moscow: VNIII of the USSR MoI, 1983), pp. 46–52.

[22] G.I. Zabryanskiy, "Methods of Regions Criminological Classification," *Bulletin of the MSU* (Series 11 Law) 5 (1989): 52–54.

[23] G.I. Zabryanskiy, "Criminological Classification of the Russian Federation's Regions," *Bulletin of the MSU* (Series 11 Law) 2 (1993): 42–50.

dexes reflecting unemployment, distrust, poverty, and certain types of crimes, etc., were combined into three principal components.[24]

Consecutive application of the principal components and cluster analysis for the purpose of criminological quantitative and qualitative classification in Russia was undertaken in the early 1990s by the Criminality Analysis and Forecasting Laboratory of the Research and Development Institute of the Ministry of Internal Affairs of the Russian Federation. The multidimensional statistical analysis was undertaken for the 155 indexes and 77 regions respectively united into 13 principal components and six classes.

A contemporary Russian scientific and educational handbook on criminology differentiates two groups of integral factors:

- Economic environment (the gross domestic product (GDP), the average labor remuneration, the share of labor remuneration in the GDP, the minimum subsistence level, the poverty level, the inflation rate, the unemployment rate, the GDP growth rate per year, the industrial production index, the consumption prices index, the budget deficit, the property structure, the monopolisation level, the amount of direct and indirect taxes, and the payment balance).

- Social and political environment (inhabitants; income and expenses, average consumption levels of key food products, living conditions (including healthcare institutions, social and cultural facilities), educational levels, quality of life, birth rates, death rates, disease levels, migration patterns, etc.).[25]

The following components were the most informative:

- Criminological parameters (general criminality ratios; grave crimes; crimes against persons; crimes against property; crimes committed by persons previously convicted; the ratio of crimes committed by underage persons or with their participation, urban and rural crime levels);

- Social parameters (average personal income, minimum subsistence level, income levels, provision with accommodation, share of persons with higher and secondary professional education against the total number of employed population, provision with doctors per 10,000 inhabitants);

- Demographic parameters and migration patterns;

- Economic parameters (index of industrial products' physical number, share of direct and indirect subsidies from the federal budget in relation to net incomes of regional budgets).

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[24] I. Kawachi, B. Kennedy, and R. Wilkinson, "Crime: Social Disorganization and Relative Deprivation," *Social Science and Medicine* 48 (1999), p. 26.

[25] V.N. Burlakova and V.P. Salnikova, eds., *Criminology – XX Century* (Saint Petersburg: Legal Center, Press Publishing House, 2000), pp. 91–92.

Furthermore, regions were subdivided into seven groups with close values of the selected indexes.[26]

In view of the criminality analysis, studying specifics in the regions is, *inter alia*, aimed at detecting the state and condition of criminality, specific features thereof, inherent in each of the administrative units; determining characteristic local processes, phenomena, circumstances, materially affecting criminal trends and other offences; developing different classifications of the regions in terms of criminality indexes, as well as social and economic development.

A System of Indexes for the Social and Economic Typology of Ukrainian Regions

The following conditional interpretation of terms was used in the research.

Criminal situation – the totality of circumstances characterising the condition, structure and dynamics of criminality in the region, as well as the set of interrelated social, economic and other factors. Analysis of peculiarities of the criminal situation may be based on official statistics.

Criminality – the totality of certain groups of crimes (general criminal, economic) committed in a certain region or over a certain period of time.

Criminality condition – the quantitative and qualitative characteristics of crimes, persons who committed crimes and persons affected by crimes.

Criminality dynamics – the changes of the criminality condition and structure over a certain period of time.

Region means an administrative unit of Ukraine characterised by its integrity and socio-economic interdependence (24 oblasts, the Autonomic Republic of Crimea, Kyiv and Sebastopol).

The data on regions was selected for a five-year period and the statistical data was transformed into specific issues (for instance, the number of crimes per 100,000 inhabitants of the country's population, the number of diseased persons with a diagnosis per 10,000 inhabitants, the costs of the population per person, etc.).

The criminological typology of Ukrainian regions implies forming uniform groups subject to the description of content differences (in terms of the key indexes of criminality and social and economic development). We determined the following tasks:

- Aggregation of statistics into integral indexes characterising certain trends in the country's regions
- Creating uniform groups of regions
- Forming typology in terms of space and time.

Such technology may shape social and economic development trends, and development in certain regions in terms of space and time.

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[26] Ibid., pp. 92–93.

To create typology, methods were selected to facilitate a descriptive demonstration of statistics modelling, namely analysis of the principal components and cluster analysis.

Principal Component Analysis (PCA) is a method of data analysis which is normally applied to reduce the data dimension (large number of interrelated variables), and retain the maximum scope of source information. As a result of principal component analysis, new variable principal components are created, constituting the linear combination of the benchmark indexes. In this case, the first principal component comprises the bulk of the dispersion of the benchmark indexes.

The PCA constitutes an exploratory method, which is based on the assumption that certain subsets are generated by latent factors. The PCA is based on the correlation matrix in order to identify principal components, which may help to interpret the data. Reduction of the data dimension is necessary when features are strongly interrelated (correlated). The PCA is about the differentiation of new principal components from the object characteristics, which reflect the object properties in a more adequate way. The PCA is a kind of factorial analysis.

Cluster analysis is a general term for competition procedures which are used for classification. It is based on the results of handling clusters (or groups) of very similar objects. Furthermore, cluster analysis is a multidimensional statistical procedure which is used for organising objects into uniform groups.[27] Cluster analysis is a totality of computation procedures, used to determine a hierarchy (breakdown) which forms the basis of certain data totalities.[28] The essence of cluster analysis is to determine the natural accumulations of objects. However, the goal should be set to reach the maximum density for each group (cluster) separately and distance of the group in the space. The analysis must result in clusters (classes, types) in the multidimensional space (which may not be discovered during a visual examination or by analysis.

In order to provide some brief generalisations of the information, two types of cluster analysis where used: *EM cluster analysis* (which is known in specialised literature as a two stage cluster analysis) and the *hierarchical cluster analysis under Ward's method*. Various clusterisation methods (forming the classes of similar objects) may generate different cluster solutions. The better feasibility of the typology may be predicted once the results of using these two methods of cluster analysis coincide.

The aim of the *EM* clusterisation is to compute the average and standard deviations of the objects in the cluster so as to achieve maximum improvements in the data distribution. An EM algorithm attempts to get the available distributions close subject to the mix of the

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[27] *Factorial, Discriminative, Cluster Analysis*, Translation from English (Moscow: Finansy i Statistika, 1989), p. 141.

[28] M. Zhambyu, *Hierarchical Cluster Analysis and Matching* (Moscow: Finansy i Statistika, 1988), p. 9.

difference distributions in the clusters through two consecutive stages – *Estimation* of the mix parameters and *maximization* of the maximum credibility method's functionality.[29]

This method supports not only the automatic definition of the optimal number of clusters, but also the handling of a large variety of indexes and differentiation of the most informative indexes.

Hierarchical cluster analysis according to Ward's method aims to identify the spherical form clusters in the space of indexes. This software also determines the optimal number of indexes.

To determine regularities in the social and economic development indexes and criminality, the following methods were used. The *unifactor disperse analysis* uses statistical estimation of the certain indexes average values' difference in groups (for instance for different years). The *correlation analysis* reflects the strength of the statistical correlation between indexes.

In view of the aims of the criminological analysis and the availability of data (the statistical annual bulletin of Ukraine for the relevant years was used as issued by the State Statistics Committee of Ukraine), we selected the following indexes (for a five-year period with a breakdown by regions):

1.0 Population
1.1. Population density
1.2. Breakdown of permanent population by the age groups (number of urban and rural population, persons)
1.3. Natural growth of population per one thousand inhabitants
1.4. Average life expectancy
1.5. Number of pensioners per one thousand inhabitants
1.6. Natural of growth per one thousand inhabitants
1.7. Number of persons arriving and leaving the region (interregional migration)
1.8. Migration balance percentage
2.0 Quality of life
2.1. Average monthly salary of hired employees, UAH
2.2. Expenses of the population, per inhabitant, UAH
2.3. Average size of residential area per *urban* inhabitant, in square meters
2.4. Average size of residential area per *rural* inhabitant, in square meters
2.5. Provision of the population with private cars per one thousand inhabitants
3.0 Condition of the labour market

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[29] S.A. Ayvazyan, V.M. Buhshaber, I.S. Yenukov, and L.D. Meshalkin, "Generalised Methods of Cluster Analysis," in *Applied Statistics: Classification and Reduction of Dimension*, Reference Edition, ed. S.A. Ayvazyan (Moscow: Finansy i Statistika, 1989), pp. 192–202; http://www.spc-consulting.ru/ DMS/intro_cl.htm.

3.1. Economic activity of the population, percentage of the population aged between 15-70 years

3.2. Unemployment, percentage of the economically active population aged between 15-70 years

3.3. Load per vacant job, vacancy, person

3.4. The level of official unemployment

4.0 Industrial production and trade

4.1. Gross product per person, UAH

4.2. The total volume of retail goods turnover per person, UAH

4.3. The volume of services sold per person, UAH

5.0 Condition of healthcare

5.1. Number of doctors per one thousand inhabitants

5.2. Number of beds in hospitals per one thousand inhabitants

5.3. Breakdown of HIV/AIDS infected persons

5.4. Active tuberculosis disease rate

6.0 Criminality

6.1. Registered crime level

6.2. Wilful grievous body harm (article 121 of the CCU)

6.3. Wilful medium grievous body harm (article 122 of the CCU)

6.4. Robbery (article 186 of the CCU)

6.5. Robbery with violence (article 187 of the CCU)

6.6. Hooliganism (article 296 of the CCU)

6.7. Theft (article 185 of the CCU)

6.8. Fraud (article 190 of the CCU)

6.9. Economic crimes unveiled

6.10. Number of crimes committed by organised crime groups and criminal organisations

6.11. Data on crimes in the field of drugs turnover

6.12. Violation of the road traffic of safety or vehicles operation rules by drivers (article 286 of the Criminal Code of Ukraine)

We believe that these indexes comprehensively reflect different areas of society (demographic development, quality of life, economic achievements, health condition, criminality level). The relevant area under the selected social and economic indexes is comprehensively characterised by 3 to 5 statistical indexes.

The *demographic development* constitutes a separate area of the activities of society. The relevant indexes reflect the general characteristics of the Ukrainian population. Their use for analysis allows for a shift to relevant indexes, i.e. forming the relative ratios calculated per 100,000 persons – ratio of the urban and rural population (number of urban inhabitants per rural inhabitant).

The demographic indexes determine average values in the regions' groups, correlation with the criminality statistics indexes, etc. As results of other scientific studies show, as referred to in the text above, as well as the official methodologies – the demographic indexes are not directly included in the analysis of the regions' social and economic development.

The inhabitants' *life quality* is defined through salaries and expenses. Thus, if a family earns more, the consumption structure is improved. This group comprises indexes which reflect residential area and vehicle ownership.

The *labor market condition* is defined on one side by the demographic parameter (the economically active population) and on the other side by unemployment.

The *industrial production* and *trade* was characterised by the general indexes reflecting the economic activity of the enterprises.

Healthcare is represented by two indexes concerned with health support and in-patient treatment. These indexes are important in terms of decreasing the average life span in Ukraine. Development of the social sphere is also reflected by other indexes (education, welfare, culture, and recreation). However, we believe that these spheres are not as important for physical survival. The healthcare condition may be referred to the social infrastructure, since patients normally represent socially unprotected persons – the elderly and disabled.

The population's health condition may be researched through the indexes reflecting diseases (HIV, tuberculosis) due to changes of sexual partners by women in the commercial sex industry, use of drug substances, poor living conditions, etc. The HIV and tuberculosis problem is extremely serious. Ukraine is a leader in terms of diseases growth rates among European countries. Furthermore, the statistics reflect only a portion of patients affected.

A certain sphere is represented by indexes reflecting the registered *criminality* (all the indexes were calculated as the ratio per 100 thousand of the available population). Certain indexes relate to criminality in general (body harm, robberies, violence, and hooliganism), lucrative criminality (theft, fraud), organised and drug-related crime in the field of traffic security.

To form a general typology of regions, we selected only one *criminality* index. Should the other indexes of our analysis be represented in aggregate, the criminality index will have its own value.

A logical diagram of social and economic factors, demographic development and criminality is shown in Figure 1.

The level of criminality is concerned with demographic factors, primarily those which differentiate the urban life activities zone from that of the rural area. Socio-economic changes and a weakening of social control in urban areas create preconditions for offences and crime. A higher level of economic development and quality of life also influence the nature of crime. The proliferation of certain types of diseases and drug addiction is worsening the criminal situation.
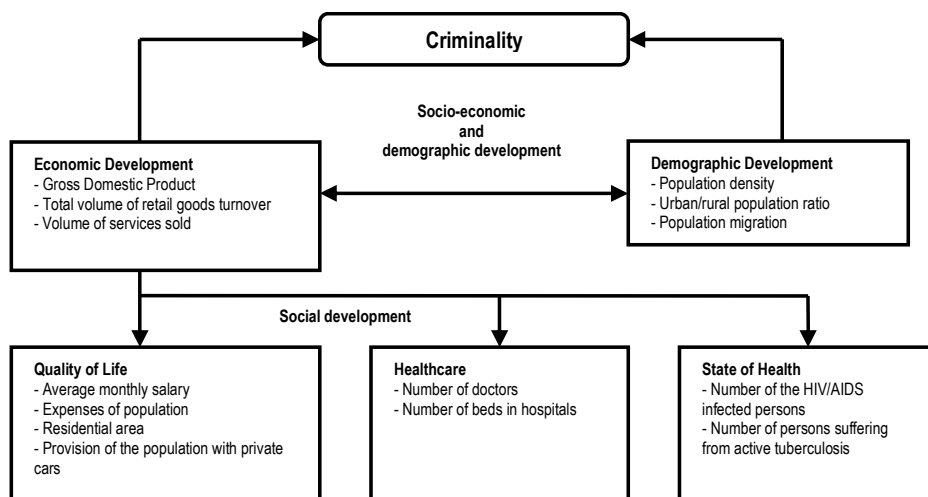
Figure 1: Diagram of the Social and Economic Development Indexes and Criminality Index Relations.

Criminological Typology of Ukrainian Regions: Experience of the Multidimensional Statistic Analysis

The benchmark data of our analysis (availability of indexes covering 27 regions for 2002-06), when the available information on a great number of objects for a comparatively short period of time implies the selection or the indexes links analysis, under which the data array will be arranged vertically, i.e., each region will be included in analysis of relevant years.[30] To this end, the PCA may be used in order to reduce the number of benchmark indexes and the cluster analysis for identifying concentrations in the new space of integral indexes.

For the purpose of researching the specificities of the criminal situation in Ukrainian regions, the "*objects-years*" methods was used, meaning an increase in the observations number due to the fact that each object is included in the totality with the number of times equal to the number of observation periods, the *data aggregation* – average weighing of data for the entire period.[31]

Under the first approach we gained a greater volume of the sample, thus increasing stability and statistical meaningfulness. We assumed that social processes have relative stability over time.

The second approach deserves attention: average weighing of data for six years was undertaken by American specialists G. Kowalski, R. Dittman and W. Bung when research-

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[30] G.M. Gambarov, N.M. Zhuravel, Yu.G. Korolev, et al., *Statistical Modeling and Forecasting: A Handbook*, ed. A.G. Granberg (Moscow: Finansy i Statistika, 1990), p. 135.

[31] Ibid., pp. 128–130.

ing the geographical proliferation of crime with a breakdown of states.[32] This is a recognised practice in social and economic research. Thus, when determining a region as a depressive one under the procedure for monitoring the development indexes of regions, districts and cities in the Autonomous Republic of Crimea and oblasts, as approved by the Cabinet of Ministers of Ukraine on 24 June 2006 #860, nine indexes were calculated over three years, and one for five years.[33] When defining international ratings, data from a certain period of time is summarised. Such an approach is, *inter alia*, applied by *Transparency International* to determine the corruption perception index.

When analysing criminological typology in terms of space and time, both approaches will be applied.

When handling the task of breakdown of Ukrainian regions typology, the following should be taken into consideration:

1. Requirements of the PCA on reliability of the statistical estimation results require 7 to 10 objects (regions) per index. Thus, in our case, the maximum number of indexes should constitute (27 regions x 65 years/10) about 13 indexes.

2. The number of integral indexes (principal components) should be small. Otherwise the criterion for the further typology breakdown of Ukrainian regions is diluted. The first, the second and the third components have the greatest informative significance.

3. The principal components should be interpreted substantially; each component should include 2 to 7 indexes with a high factorial load (benchmark indexes should be strongly correlated with one of the principal components and weakly with the others).

Thus, an increase in index numbers, inclusion of the secondary or insignificant (in the context of creating the regions criminological typology) indexes under which the regions do not significantly differentiate (the low dispersion, i.e., deviation from the average value of the indexes) having the values in the regions significantly different from the general situation, duplicating the indexes with the similar interregional breakdown will create further factorial and cluster solutions.

Not all indexes out of the selected list are included in the PCA. Besides, the official data for 2007 did not include the index of the gross regional product for 2006 (meaning that 27 regions were excluded from the analysis). Based on the calculations for the four-year period, this index is strongly related to the other economic indexes. For the same reasons (exclusion of the regions with the absence of index from the analysis) the indexes of the population provision with housing were excluded. The indexes reflecting the democratic process were not included in the analysis either.

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[32] G.S. Kowalski, R.L. Dittman, and W.L. Bung, "Spatial Distribution of Criminal Offenders by States, 1970-1976," *Journal of Research in Crime and Delinquency* 17:1 (January 1980): 4–25.

[33] I.B. Zhylyayev, "Legislative Support of Managing Depressive Regions of Ukraine," *Strategy of Development of Ukraine* 1-2 (2007), p. 446.

Table 1: Variation Ratio of the Social and Economic Development Indexes.

Index	Variation Ratio, %
Population density (persons/1 km^2)	296.3
Number of urban inhabitants per rural inhabitant	126.8
Average expected life length at birth, both genders:	2.2
Males	2.9
Females	1.5
Number of pensioners per one thousand persons	9.1
Average monthly nominal salary of hired employees, average per full-time employee (UAH)	43.3
Expenses of the population, per inhabitant, UAH	56
Provision of the population with dwelling (on average per person, m2 of the total floor area): In urban settlements	6.5
In rural areas	16.5
Provision of the population with privately owned cars (per one thousand of permanent inhabitants, pieces)	23.3
Economically active population, 15-70 years old (percentage to population 15-70 years old)	5.3
Unemployment among population (under the ILO methodology) 15-70 years old (percentage to population 15-70 years old)	28
Load of unemployed citizens per vacant job, vacancy, persons	67.8
Level of official unemployment (percentage to able-bodied population)	39.3
Gross regional product per person (in actual prices, UAH)	65.9
Retail goods turnover or retail traders and restaurant establishments, per 1 person, UAH	73.1
Volume of services sold per person, UAH	127.1
Provision of population with medical doctors of all specialties (number of doctors per one thousand inhabitants)	22.9
Number of beds in hospitals per one thousand inhabitants	10
Breakdown of HIV (number of diseased persons with a diagnosis determined for the first time in life) per 10 thousand inhabitants	85.5
Breakdown of persons suffering from AIDS (number of diseased persons with a diagnosis determined for the first time in life) per 10 thousand inhabitants	131.9
Active tuberculosis disease rate (number of diseased persons with a diagnosis determined for the first time in life) per 10 thousand inhabitants	30.8
Total number of registered crimes in the reporting period per 100,000 inhabitants	32.6

For the PCA we only selected the social and economic development indexes (respectively the pure demographic indexes and indexes defining the crime rate were not included in the analysis). In our opinion, blending the different influence hierarchy indexes into a single PCA is unreasonable. Evidently, the social and economic parameters influence criminality.

The greatest interests for researchers are represented by the indexes which are variable over the regions. Table 1 shows that the values of the variation ratio (V) of certain indexes of social and economic development on the array comprised 135 objects. The variation ratio details the percentage on average for individual values of the index which differ from the average arithmetic value. With the help of this ratio it is possible to compare the variability of indexes determined in the different units.

The variation ratio value V < 10 % shows insignificant relative fluctuations (thus, the totality may be considered to be a uniform one) 10 < V < 30 – medium, V > 30 – large (under the asymmetric breakdown the V value may exceed 1).[34]

As shown in the table, some demographic indexes (number of pensioners, life span of men and women, reflect a weak variation. Moreover, relative fluctuations were recorded in different age groups (14-17 years, 18-24 years, 25-28 years, 29-30 years, 40-49 years, 50-59 years, 60+ years), calculated per 100,000 inhabitants in the relevant region.

The material variation ratio is shown by the demographic indexes of density and breakdown of the urban and rural population. In a previous paper we determined that the crime rate depends on the urbanisation intensiveness, namely on the index reflecting a breakdown of regions into industrial and agricultural ones.[35] The demographic index (number of urban inhabitants per rural inhabitant) which reflects urbanisation was not calculated for Kyiv and inclusion thereof in the statistical data for the five years will decrease the number of objects by five (thus, Kyiv will be excluded from the analysis). This is important in terms of influence on the criminality demographic index which will be employed at the final stage when dividing the administrative and pictorial units through an empiric typology breakdown in the clusters and macro-regions.

We paid attention to indexes covering the major fields of a region's activities. The statistical indexes relate to the entire population (expenses, average monthly nominal salary, retail turnover of goods, and volume of sold services) or those of the sizable social communities (level of official unemployment, the number of beds in hospitals).

An important index which may influence criminality is migration. These indexes (migration balance, migration growth or reduction), although having a significant variation ratio, are relatively small. They will be used for interpreting the integral indexes.

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[34] Calculation of the V in the different totalities implies the procedure for evaluating the ratios differences. In our case, the number of objects is stable – 135 or 130 regions (indexes, excluding Kyiv, for instance, number of urban inhabitants per rural inhabitant) over five years. Thus, there is no need to evaluate variation ratios.

[35] I.M. Dzhuzha, I.G. Kulyk, V.V. Vasylevych, et al., *Methods for Criminological Analysis of Criminality in Ukraine: Handbook*, ed. J.M. Dzhuzha (Kyiv: KNUIA), p. 160.

For certain arrays distinguished in each year the values of the relevant variation ratio decreased to some extent compared with the general array.

Thus, upon the substantial and preliminary statistical analysis, the 12 social and economic indexes for the 27 regions of Ukraine covering a five-year period (2002-06) were included in the PCA. Table 2 represents the matrix of the benchmark indexes correlation ratios with the principal components (aggregated indexes). The correlation ratio shows the values of links between the indexes: the greater its value under the module, the stronger the indexes breakdowns agree with each other. The PCA idea reflects the fact that the seven indexes are strongly correlated (change of one index value takes place with the change of another one). Thus a single process forms the basis of the express implications totality. The latent components or factors show greater explanatory capacity, since the aggregated indexes embody the multi-dimensionality of the social and economic development. The sample adequacy criterion under Keiser-Meir Olkin (the KMO) is equal to 0.79, the Bartlett's sphericity criterion 1,705.4 under 66 stages and $p < 0.001$.

Table 2: Correlation Ratios Matrix – General Array: 135 Regions over Five Years (PCA, Rotation of Components under the Varimax Method).

Indices	Principal Components (integral indexes)	
	Social and Economic Component	Social and Problematic Component
Expenses of population	0.930	0.165
Retail goods turnover of the enterprises	0.919	0.134
Volume of services sold	0.903	0.089
Provision of population with doctors	0.817	-0.229
Average monthly nominal salary	0.752	0.405
Provision of the population with private cars	0.699	0.037
Unemployment among population (under the ILO methodology)	-0.668	-0.445
Level of official unemployment	-0.667	-0.422
Number of beds in hospitals	0.411	-0.018
Breakdown of HIV infected persons	0.236	0.896
Breakdown of persons suffering from AIDS	0.201	0.871
Active tuberculosis disease rate	-0.218	0.579
Percentage of dispersion	50%	17%

As we see from Table 2, the regions may be described using two integral indexes (comprising the major part of the dispersion benchmark features), conditionally named as follows:

1. "Social and economic component of development"
2. "Social and problematic component of development."

The social and economic component is named so in view of the indexes which it determines, namely population costs, turnover of enterprises, volume of sold services, employment indicators, etc. Economic development is concerned with the social aspect, since the growth of purely economic indexes entails an increase in the number of doctors and beds in in-patient medical establishments. In the economic component, the availability of the socially determined diseases is insignificant – the R correlation ratio is less than 0.3 under the module which is a sign of a weak relation.

However, the social and problematic component is interrelated with society's ulcers – HIV/AIDS and active tuberculosis. This component includes indexes which reflect risky behaviour (consumption of injection drugs, promiscuous sexual relations, poor living conditions (poor food, restrictions in high-quality medical treatment). The first component includes 50% of the dispersion's benchmark features, the second includes 17%; therefore, the new aggregated indexes absorb the information on 12 benchmark indexes at 67%. Under the horizontal axis X (the social and economic component) – the greater value of the region, the better the social and economic conditions. On the vertical axis X (the social and problematic component) the greater the value of the region, the worse the disease rate.

The average values of the two components are equal to zero, the standard deviation is zero. Figure 2 shows the average values of the social and economic and social and problematic components with a breakdown by years. Each year the economic condition in the country is improving with a simultaneous proliferation of social diseases.

When verifying the statistical hypotheses with respect to differences between the average values of the economic and social component (dispersion analysis under the *Tiyuki* criterion), we discovered that the statistically significant ($p < 0.05$) under the economic component differed in the following years: 2006 from 2002, 2003, 2004, and under the social component: 2006 from 2002 and 2003, 2005 from 2002.[36]

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[36] The empiric level of significance (p) shows probability of error in case of the zero statistical hypothesis deviation (e.g., despite the correlation ratio value in the general totality is equal to zero, the average values of the index in the two groups are similar), although in fact it is true. Thus, we may state that the correlation ratio is not equal to zero in the general totality or distinctiveness of the average values is different in two groups, with mistakes in 1% or 5% cases out of 100, respectively. Actually, all the available statistical indexes are calculated for the entire totality of the general totality objects. We decided to present additional data on the results of the statistical hypotheses to ensure improved substantiation of data as the number of the general totality objects is small (27 regions or 135 regions over five years).
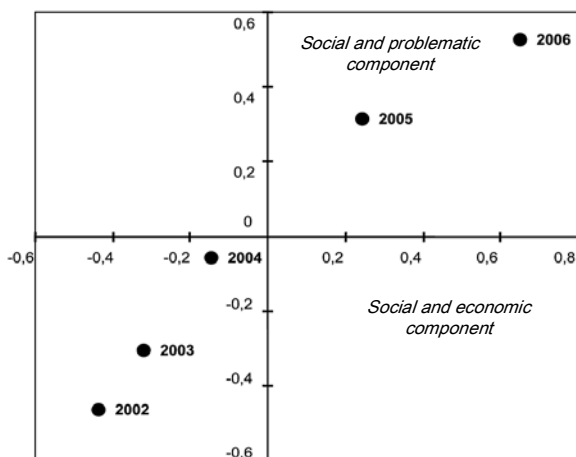
Figure 2: Average Values of Components in Ukrainian Regions (135 Regions over 5 Years).

Thus, in the social and economic development of Ukrainian regions certain time periods may be distinguished where the indexes have changed slowly: 2002-04 and 2005-06.

The PCA on certain arrays (27 regions) with a breakdown by years results in the same structures describing approximately 70% of specialists with benchmark features.

The multidimensional statistical analysis demonstrated that certain social and economic development indexes are interrelated. A certain number of indexes may be grouped into two integral components: the social and economic and social and problematic. From a practical point of view it supports the use of only aggregated indexes as independent features (factors) of criminality. Furthermore, the PCA results support the inclusion of certain indexes (the substituting indexes) which where incorporated in the principal components. Based on the results, the inherent peculiarities of social and economic development may be clarified.

Figure 3 details the breakdown of regions in terms of two latent components. The figure depicts three concentrations of the objects – two tags along the social and problematic components and Kyiv. As we see from the figure over the five years in terms of the economic development, the region #11 (Kyiv) stands out to the greatest extent in terms of economic development. Evidently, the economic situation is better in this region – people earn more money and unemployment is low. In Kyiv, the situation in terms of economic indexes is improving significantly each year, which is not the case in the other regions. We would point out that in the research of the social and economic peculiarities of the Belarusian SSR in 1970 the principal components analysis was complete. In the three components of the 75 cities and towns, the capital of Belarus was significantly distant from the other objects.[37]

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[37] I.V. Bestuzhev-Lada, V.N. Varygin, and V.A. Malakhov, *Modeling in Social Research* (Moscow: Nauka, 1978), pp. 50–51.
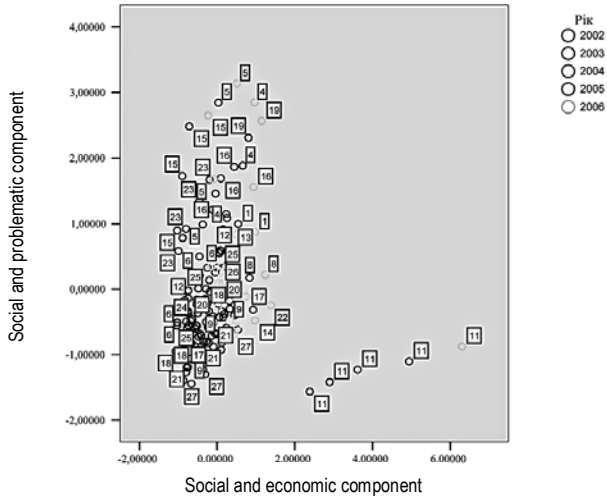
Figure 3: Regions in the Latent Components Space (135 Regions over a Five Year Period).

Coding of Ukrainian Regions on Figure 3

Region	Code
The Autonomous Republic of Crimea	1
Vinnytsya	2
Volyn	3
Dnipropetrovsk	4
Donetsk	5
Zhytomyr	6
Zakarpattya	7
Zaporizhzhya	8
Ivano-Frankivsk	9
Kyiv	10
City of Kyiv	11
Kirovograd	12
Luhansk	13
Lviv	14
Mykolayiv	15
Odesa	16
Poltava	17
Rivne	18
Sebastopol	19
Sumy	20
Ternopil	21
Kharkiv	22
Kherson	23

Khmelnytsky	24
Cherkasy	25
Chernigiv	26
Chernivtsi	27

Figure 3 shows that the dispersion is to a greater extent related to the social and problematic component. The relatively stable trend of economic development is shown by the regions under #1 (the Autonomic Republic of Crimea), 15 (Mykolayiv Oblast), 16 (Odesa Oblast), 23 (Kherson Oblast), 27 Chernivtsi Oblast). The PCA illustrates the group of interrelated indexes constituting the principal components. The PCA accounted for changes in the social and economic indexes in the various regions of Ukraine over time.

Looking through the dynamics at the index reflecting the number of registered crimes, the preliminary visual analysis of the breakdown density for 2000-06 shows that the regions may be united in terms of the crime rate into two large groups. The breakdown point is approximately equal to 1000 crimes per 100,000 inhabitants.

To find out the stability of the relevant groups for each year, the regions where divided into two groups which are approximately equal in terms of the regions number. These groups are the percentile ones; they reflect the crime rate as lower and higher than a certain benchmark (see Tables 3 and 4). If over the five years a region was included to make its percentile group (with a low or high level of crime rate), it meant certain stability. Thus, the 13 regions are characterised with a crime rate lower than the average and the 14 regions of Ukraine with a crime rate higher than the average.

The criminality trends in two groups are similar to the maximum occurring in 2003. Furthermore, registered crimes are decreasing and, in 2006, the registered crime rate was lower than in 2002.

It should be pointed out that the breakdown of 27 regions is similar in terms of the region's percentile groups to the lower, medium and high crime rates giving less stable results. Thus, six Western oblasts (Ivano-Frankivsk, Zakarpatska, Lviv, Rivne, Ternopil, and Chernivtsi) are characterised with a low criminality level. The medium criminality level is recorded in five oblasts which are different in terms of geography (Odesa, Poltava, Kirovohrad, Chernihiv, Sumy). The high criminality level is recorded in eight oblasts (Dnipropetrovsk, Zaporizhzhya, Donetsk, Luhansk, Mykolayiv, Kherson oblasts, the Autonomic Republic of Crimea, Sebastopol). Thus, when dividing the regions into three similar categories in terms of percentile groups (comprising nine regions each with the low, medium and high crime rate) only 19 regions show a steady development of criminality.

Thus, the details shown in Tables 3 and 4 providing a breakdown of regions into two large percentile group only ensure a clearer depiction of the general trends of criminality development, while failing to consider the internal social and economic factors.

Table 3: Breakdown of the Regions in Terms of the Crime Rate Lower than the National Average (the First Percentile Group), by Years.

Year Region	2002	2003	2004	2005	2006	Region Stability in the Percentile Group 1
Ivano-Frankivsk	1	1	1	1	1	5
Vinnytsya	1	1	1	1	1	5
Volyn	1	1	1	1	0	4
Zhytomyr	1	1	1	1	1	5
Zakarpattya	1	1	1	1	1	5
Kirovograd	0	0	0	0	1	1
Kyiv	1	1	1	1	1	5
Lviv	1	1	1	1	1	5
Rivne	1	1	1	1	1	5
Ternopil	1	1	1	1	1	5
Khmelnytsky	1	1	1	1	1	5
Cherkasy	1	1	1	1	1	5
Chernivtsi	1	1	1	1	1	5
Chernigiv	0	1	1	1	1	4
City of Kyiv	1	0	0	0	0	1
Subtotal	13	13	13	13	13	65
Average crime rate per 100 thousand inhabitants of percentile group 1	637.8	773.8	720.7	677	601.4	682.1

Table 4: Breakdown of the Regions in Terms of the Crime Rate Higher than the National Average (the Second Percentile Group), by Years.

Year Region	2002	2003	2004	2005	2006	Region Stability in the Percentile Group 2
The Autonomous Republic of Crimea	1	1	1	1	1	5
Volyn	0	0	0	0	1	1
Dnipropetrovsk	1	1	1	1	1	5
Donetsk	1	1	1	1	1	5
Zaporizhzhya	1	1	1	1	1	5
Kirovograd	1	1	1	1		4
Luhansk	1	1	1	1	1	5
Mykolayiv	1	1	1	1	1	5

Odesa	1	1	1	1	1	5
Poltava	1	1	1	1	1	5
Sumy	1	1	1	1	1	5
Kharkiv	1	1	1	1	1	5
Kherson	1	1	1	1	1	5
Chernigiv	1					
City of Kyiv	0	1	1	1	1	4
Sebastopol	1	1	1	1	1	5
Subtotal	14	14	14	14	14	70
Average crime rate per 100 thousand inhabitants of percentile group 2	1037.7	1328.1	1240.1	1176.2	1021.8	1160.8

Table 5: Correlation Ratios of Different Crime Types and Social, Economic and Demographic Development Indexes (135 regions over five years)

	Number of Registered Crimes	Social and Economic Component	Social and Problematic Component	Urban/rural population ratio
Number of Registered Crimes	1	0.222	0.449	0.511*
Wilful grievous body harm	0.738*	-0.033	0.640**	0.468*
Wilful medium grievous body harm	0.523*	-0.104	0.501	0.423*
Robbery	0.688	0.687	0.449	0.572
Robbery with violence	0.682	0.288	0.665*	0.620*
Hooliganism	0.562	0.052	0.144	0.499*
Theft	0.920	0.057	0.244	0.437
Fraud	0.628	0.558	0.270	0.522
Economic crimes	0.582	-0.038	0.444*	0.148
Crimes committed by organised criminal groups or criminal organisation	0.287*	0.329*	0.006	0.210*
Crimes in the field of drugs turnover (certain articles of the Criminal Code of Ukraine)	0.716*	0.204*	0.535*	0.194*
Violation of the road traffic safety rules	0.583*	0.303*	0.453*	0.334*

*   The correlation ratio is statistically significant at the significance level of 0.01.
** The correlation ratio is statistically significant at the significance level of 0.05.

Let us analyse the interrelation of some indexes of the social and economic development with the criminality indexes (see Table 5). The table shows that the general level of criminality normally has some moderate statistically significant relation to the other kinds of crimes. In view of the correlation ratio values one may predict that the statistical breakdown in terms of certain crimes by region will repeat the criminality breakdown in general.

Furthermore, the table demonstrates the positive statistical significant relation to certain types of crimes and criminality in general. The social and problematic component is to a greater extent correlated with the crime rate than the social and economic one. The high economic development level and rate of the socially preconditioned diseases follow increases in the crime rate.

The correlation ratios shown in this table reflect a stronger influence on criminality of the social and problematic component than that of the social and economic one. In regions where the social and economic situation is generally better (lower unemployment rate, better medical support, higher income), the crime rate is higher (the same conclusion is made by contemporary Russian scientists through correlation analysis of the crime rate with certain economic indexes depicting the income level and the industrial production level).[38] The distinguished social and economic components has strong relations with the migration indexes (namely with the index of the number of crimes persons coming to the region r = 0.7, with the migration balance index, r = 0.78, with the migration growth or reduction index r = 0.82). The migration indexes as such have a low relation to the registered crimes index (r value for 135 regions and five years does not exceed 0.25). Thus, migration processes conform to the general social and economic development and have some selective conjunction with the crime rate.

To build up the criminological typology, the crime rate value (the number of the officially registered crimes per 100,000 inhabitants) was included in the generalised indexes of the social and economic development. This index is used as a full weight for the region, since criminality has some inert properties (determined through analysis of the degree of filling with the objects of two percentile groups), self-determination (indexes of certain crimes related with the general crime rate). As Table 5 demonstrates, it may be expected that when researching certain types of crime (violent, lucrative) in the region, the high general level of general crime rate will adversely influence certain types of crime in all regions.

In order to provide some briefer generalisation of the information, the two types of cluster analysis where used: *EM cluster analysis* (which is known in the specialised literature on statistic analysis as a two stage cluster analysis) and the *hierarchical cluster analysis under Ward's method*. Various clusterisation methods (forming the classes of similar objects) may generate different cluster solutions. The better feasibility of the typology may be predicted once the results of these two methods of cluster analysis coincide.

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[38] A.I. Zhandlerov and F.F. Shiller, "Analysis of the Criminality Indexes Dynamics' Peculiarities in the Regions of Russia (using the example of Moscow)," *Statistics Matters* 11 (2008), pp. 63–64.

The aim of the *EM-clusterisation* is to compute the average and standard deviations of the objects in the cluster as a way to achieve maximum improvement of the data distribution. *EM-algorithm* tries to get the available distributions close subject to the mix of the difference distributions in the clusters through the two consecutive stages – *Estimation* of the mix parameters and *maximization* of the maximum credibility method's functionality.[39]

This method allows not only to automatically define the optimal number of clusters, but also to handle a large variety of indexes and differentiation of the most informative indexes from the point of view of clusterisation.

The hierarchical cluster analysis under Ward's method is aimed at identifying the spherical form clusters in the space of indexes. This software also helps to determine the optimal number of indexes.

The cluster analysis included three indexes: the social and economic component of development, the social and problematic component of development and the crime ratio (this index is standardised, i.e., brought to a single dimension scale with the components). The *EM-clusterisation* procedure and the clusterisation under Ward's method resulted in three clusters (Table 6). All these three indexes became important in the process of clusterisation.

Table 6: Characteristics of Clusters (135 Regions over 5 Years).

EM-Clusterisation				
	Clusters' Centroids			Number of Objects in Cluster
	Crime rate (number of crimes per 100 thousand inhabitants)	Social and Economic Component	Social and Problematic Component	
Cluster Number	1	1084.0	4.03	-1.24	5
	2	1225.6	0.10	0.82	53
	3	717.1	-0.33	-0.49	77
Average for the array	930.3	0	0	

Clusterisation under Ward's Method				
	Clusters' Centroids			Number of Objects in Cluster
	Crime rate (number of crimes per 100 thousand inhabitants)	Social and Economic Component	Social and Problematic Component	
Cluster Number	1	1084.02	4.03	-1.24	5
	2	1219.17	0.09	0.81	54
	3	714.96	-0.33	-0.50	76
Average for the array	930.3	0.09	0	0

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[39] Ayvazyan, Buhshaber, Yenukov, and Meshalkin, "Generalised Methods of Cluster Analysis."

As we see in Table 6, the results of the two algorithms are similar: all three clusters have almost identical average values in the number of objects.

In the first cluster (4% of all objects) the best social and economic, and social and problematic situation is observed; however, the crime rate is rather high. The second cluster (39% of objects) showed a comparatively worse situation, and a negative social and problematic situation. In the third cluster (57%) the extremely negative social and economic situation is worse against the background of the first cluster.

Filling the clusters with the regions has changed from year to year (see Table 7). When comparing 2002 to the others, the stability of the region breakdown by the clusters in terms of years may be stated.

Table 7: Filling of the Clusters with the Regions.

EM Cluster Analysis of the Regions					
Cluster Number / years	2002	2003	2004	2005	2006
1	1	1	1	1	1
2	9	11	11	11	11
3	17	15	15	15	15
Clusterisation of the Regions under Ward's Method					
Cluster Number / years	2002	2003	2004	2005	2006
1	1	1	1	1	1
2	9	11	11	12	15
3	17	15	15	14	11

In different years the regions could belong to the different clusters. The regional situation based on the EM-clusterisation results is shown in Table 8. Stability or instability of the situation was based on belonging to a cluster in four cases (years) out of the five and was marked with the relevant figure (1, 2 or 3).

In general, an automatic classification may suffice: Sebastopol and Poltava Oblast often shifted from one cluster to another. However, these regions may be easily allocated to the relevant cluster, including in terms of geography. The complete stability under these three indexes over the entire five year period is shown by the 25 regions. It is peculiar that the changes in the clusters occur not only in the second and the third cluster.

In view of the regions' stability (absence of shifting or insignificance of shifting between the clusters), the *first cluster* should include Kyiv, which is much different under all indexes from the remaining Ukrainian regions.

Table 8: Regions Breakdown in Terms of Clusters (135 Regions over Five Years).

Region	Cluster Number			Stability of a Region
	1st	**2nd**	**3rd**	**Belonging to Certain Cluster**
The Autonomous Republic of Crimea	0	5	0	2nd
Vinnytsya	0	0	5	3rd
Volyn	0	0	5	3rd
Dnipropetrovsk	0	5	0	2nd
Donetsk	0	5	0	3rd
Zhytomyr	0	0	5	3rd
Zakarpattya	0	0	5	3rd
Zaporizhzhya	0	5	0	3rd
Ivano-Frankivsk	0	0	5	3rd
Kyiv	0	0	5	3rd
Kirovograd	0	0	5	3rd
Luhansk	0	5	0	3rd
Lviv	0	0	5	2nd
Mykolayiv	0	5	0	2nd
City of Kyiv	5	0	0	1st
Sebastopol	0	4	1	2nd
Odesa	0	5	0	2nd
Poltava	0	4	1	2nd
Rivne	0	0	5	3rd
Sumy	0	0	5	3rd
Ternopil	0	0	5	3rd
Kharkiv	0	5	0	2nd
Kherson	0	5	0	2nd
Khmelnytsky	0	0	5	3rd
Cherkasy	0	0	5	3rd
Chernivtsi	0	0	5	3rd
Chernigiv	0	0	5	3rd
Subtotal	5	53	77	

The second cluster should include 11 regions: The Autonomous Republic of Crimea, Sebastopol, Odesa, Mykolayiv, Kherson, Zaporizhzhya, Poltava, Dnipropetrovsk, Donetsk, Luhansk, Kharkiv oblasts, territorially in the South and the industrial centre and the East of Ukraine.

The third cluster includes 15 regions with a lower level of economic development and a highly developed agricultural sector, including Zakarpatska, Lviv, Ivano-Frankivsk, Ternopil, Volyn, Rivne, Khmelnytsky, Chernivtsi, Vinnytsya, Zhytomyr, Kyiv, Cherkasy, Kirovohrad,

Chernihiv, and the Sumy oblasts. The territorial situation includes the West, the Centre, the North and partially the East of Ukraine.

The average weighted data for the five years in terms of certain indexes is shown in Table 9. The crime rate (per 100,000 inhabitants) in the general array was brought to the standardised values (the same scale is used for indexes of the social and economic and social and problematic component) with the average equal to zero, standard deviation – one. The higher value of the standardised index of the crime rate the more crimes are registered in the region. The criminality ratio has moderate correlation to the relation of the urban and rural population number ($r = 0.55$ under $p < 0.01$) and the social and problematic component ($r = 0.59$ under $p < 0.01$), life expectancy ($r = -0.5$ under $p < 0.01$). In terms of the population density, the moderate statistically significant correlation on the general array and the average weighted data for five years was not recorded.

Table 9: Specific Factors of the Crime Rate, Social, Economic and Demographic Development (Average weighted data for five years, covering 27 regions).

Regions	Crime rate (number of crimes per 100 thousand inhabitants)	Crime rate (standardized)	Social and Economic Component (standardized)	Social and Problematic Component (standardized)	Urban/Rural Population Ratio	Population Density (persons/1 km².)
The Autonomous Republic of Crimea	1173.5	0.8	0.3	0.7	1.7	76.4
Vinnytsya	758.0	-0.6	-0.1	-0.4	0.9	65.0
Volyn	763.5	-0.5	-0.4	-0.4	1.0	52.0
Dnipropetrovsk	1382.9	1.5	0.4	1.3	4.9	109.0
Donetsk	1161.0	0.8	-0.1	1.8	9.1	176.2
Zhytomyr	797.2	-0.4	-0.7	-0.1	1.3	45.0
Zakarpattya	503.2	-1.4	-0.1	-0.8	0.6	97.6
Zaporizhzhya	1485.5	1.8	0.6	-0.1	3.1	69.0
Ivano-Frankivsk	538.1	-1.3	-0.3	-0.7	0.7	100.4
Kirovograd	871.6	-0.2	-0.6	0.0	1.5	44.0
Kyiv	770.5	-0.5	-0.1	0.2	1.4	63.2
Luhansk	1434.3	1.7	-0.2	0.3	6.2	91.4
Lviv	710.1	-0.7	0.2	-0.8	1.5	118.8
Mykolayiv	1106.2	0.6	-0.8	1.7	2.0	50.0
Odesa	1005.6	0.2	0.3	1.6	1.9	72.8
Poltava	1063.0	0.4	0.1	-0.5	1.4	54.6

Rivne	631.9	-1.0	-0.5	-0.7	0.9	57.8
Sumy	917.9	0.0	-0.4	-0.6	1.9	52.4
Ternopil	500.2	-1.4	-0.6	-1.0	0.7	81.2
Kharkiv	1223.5	1.0	0.6	-0.4	3.7	90.8
Kherson	1116.6	0.6	-0.7	1.0	1.5	40.0
Khmelnytsky	726.1	-0.7	-0.5	-0.3	1.1	67.4
Cherkasy	779.7	-0.5	-0.4	-0.3	1.2	65.0
Chernivtsi	568.8	-1.2	-0.2	-1.1	0.7	112.6
Chernigiv	836.9	-0.3	-0.4	-0.2	1.4	37.2
City of Kyiv	1084.0	0.5	4.0	-1.2		3334.8
Sebastopol	1208.9	0.9	0.5	1.1	16.2	420.8
Subtotal	930.3	0.0	0.0	0.0	2.6	209.1

In order to develop the social and economic classification based on joint data, the hierarchical cluster analysis was applied (cluster joining under Ward's method, the distance is Euclidean square, see Figure 4). The cluster analysis included indexes such as the social and economic component, the social and problematic component, and the crime rate (the index is standardised, i.e., it equates to a scale that is similar to that of the components).

The Tree diagram reflects the process of the regions' merger in terms of the clusters: first, two clusters are joined (16 and 10 objects), then the third one is added (one object). In this case, the distance between the objects of one cluster is approximately similar and it is lower than the distance to the objects of the other cluster. With regards to the clusterisation results, three clusters can be distinguished.
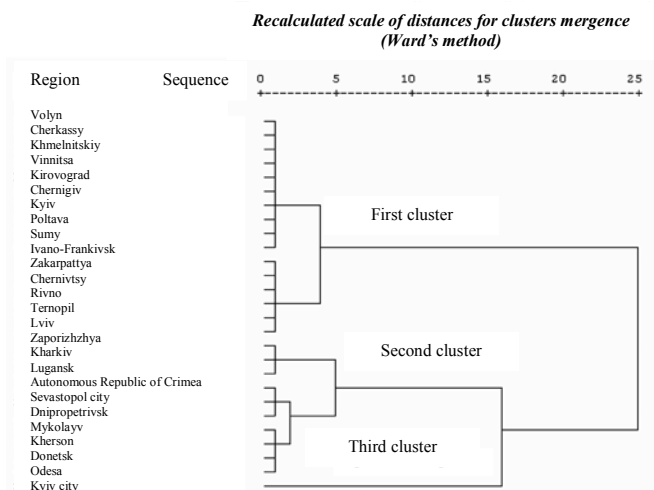

Figure 4: Tree Diagram – Regions Breakdown by Clusters (Average Weighted Data for Five Years, Covering 27 Regions).

The extent to which the automatic clusterisation of the regions became successful may be seen in Figure 4 – the projection of the regions in the space of two indexes. The clusters were visualised in the two-dimensional space which is created by the benchmark indexes of clusterisation. The best differentiation of the objects was seen in terms of the crime rate and the social component. The cluster analysis of the generalised data resulted in:

- The Central-West macro-region – 16 oblasts characterised with a comparatively low crime rate (under the average weighted data 733 crimes per 100,000 inhabitants), the most dire social and economic situation and the better social and problematic situation;

- The South-East region – nine oblasts of Ukraine, the Autonomous Republic of Crimea and Sebastopol, which are characterised with a high crime rate (1,230 crimes per 100,000 inhabitants), an improved social and economic situation and problematic social conditions;

- Kyiv city is characterised by a high crime rate (1,084 crimes per 100,000 inhabitants), a better economic situation and a problematic social situation.

The customisation differences on the general array (135 objects over five years) focus on shifting the Poltava Oblast from one cluster to another.

Table 9 shows that in those regions where the number of urban inhabitants per one rural inhabitant is lower, the crime rate is lower and vice versa – the greater the share of urban inhabitants, the higher the crime rate.

Subject to the results of the statistical computations (visual analysis of the indexes distribution density, analysis of the principal components and the cluster analysis) and in view of the crime rate, geographical location, ratio of the urban population to the rural one, specifics of the historical and ethnical development, available diagram of the economic zoning, the typology of Ukrainian regions may be represented as follows:

1. *The Western region*: Zakarpatska, Ivano-Frankivsk, Lviv, Chernivtsi, Ternopil, Volyn, Rivne oblasts (the crime rate constitutes 602 crimes per 100,000 inhabitants).

2. *The Central region*: Khmelnytsky, Vinnytsya, Cherkasy, Kirovohrad oblasts (784 crimes per 100,000 inhabitants).

3. *The Northern region*: Zhytomyr, Kyiv, Chernihiv, Sumy oblasts (831 crimes per 100,000 inhabitants).

4. *Kyiv region*: The city of Kyiv (1,084 crimes per 100,000 inhabitants).

5. *The Black Sea region*: The Autonomous Republic of Crimea, Sebastopol, Odesa, Mykolayiv, Kherson (1,122 crimes per 100,000 inhabitants).

6. *Dnipro region*: Poltava, Dnipropetrovsk, Kharkiv oblasts (1,223 crimes per 100,000 inhabitants).
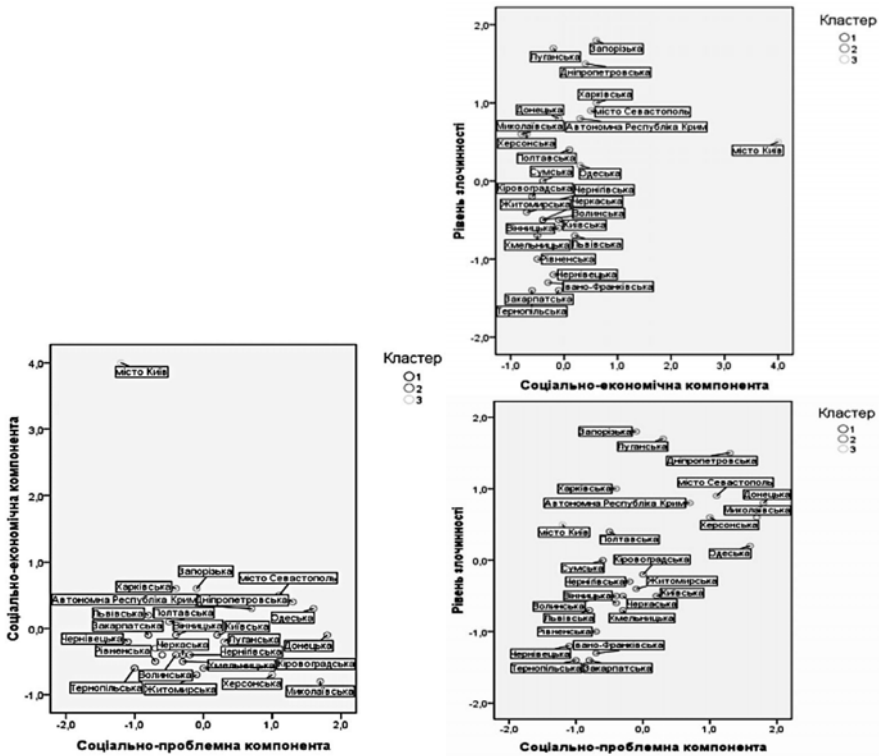
Figure 5: The Clusters Two-Dimensional Projection (Average Weighted Data for Five Years, Covering 27 Regions).

7.   *Donetsk region*: Donetsk, Luhansk, Zaporizhzhya oblasts (1,360 crimes per 100,000 inhabitants).

Typology can be built on the basis of different principles (more durable dynamic rows, several dependant and independent variables, rates of increase in socio-economic indexes and criminality can be included in the analysis) and statistical methods of the data reduction and clusters identification (P, S, T, Q techniques of the factorial analysis, description of the clusters as the logic regularities, multidimensional scaling, analysis of scale grams, analysis of the partial order scale grams with the coordinates, etc.), subject to dependence of criminality on social and economic factors (regression cluster analysis, regression analysis based on the logic regularities, regression analysis based on the principal components, canonical correlation analysis, etc.). The complexity of social events implies application of several methods of multidimensional statistics to the same methods. Further analysis should make account for and suppress the anomalies in the data (regions which are very different under certain indexes out of the total array). There is an urgent need to develop decision rules and verify data typology quality for the new period of observation. In view of

the minor volume of the general totality (27 regions), parameters of the regression and classification models (forecast accuracy, credibility intervals, within which the ratios included into the equation fluctuate) should be checked on the large amount (several thousand) of the *ad hoc* model samples (bootstrap estimation). It is necessary to continue the work to expose regularities in data and criminality.

This paper is one of the first attempts to analyse the social and economic phenomena associated to the crime rate in Ukraine. In the future, it will be possible to confirm the range of social and economic indexes based on which a comprehensive forecast of criminal development in the region or in certain types of Ukrainian regions may be made.

Summary

The *first stage* of analysis investigated the range of scientific and official sources regarding territorial differences of criminal behaviour. Regional differences of criminality were actively studied in Soviet criminology. The analysis of territorial differences in criminality reflected reasons and consequences, for instance distinguishing agricultural and industrial regions with an overview of the average crime rate, and a breakdown of the regions into certain groups in terms of the level and intensity of criminal activity and its characteristics in terms of social and economic conditions. These methods imposed certain limitations on the number of groups in terms of social and economic development (in the first case) and criminality (in the second case). Multidimensional statistical analysis was also widely applied, namely distinguishing the clusters under the preliminary formed integral indexes, the principal components or factors.

The *second stage* provided an analysis of the initial indexes, which included the most important data related to socio-economic and demographic development as well as criminality (we took into account the availability of these indexes in the State Statistics Committee of Ukraine). The results reflected a five-year period (2002-06) whereby the array is comprised vertically (135 regions), and the average weighted data for the five-year period covers 27 regions. The data was statistically processed in order to study variability. Further, the typology tasks were resolved through building up the clusters (concentrations of similar objects) at the two principal components (integral indexes reflecting the benchmark social and economic indexes) and the crime rate index. The multi-dimensional statistical analysis methods choice was preconditioned by the availability of relevant software and literature.

During the *third stage,* through analysis of the principal components, the 12 social and economic indexes were generalised into two integral indexes – the social and economic, and social and problematic components.

Subject to correlation of the social and economic indexes in the future and in order to ensure rapid regional analysis, only two indexes may be selected to present the social and economic and the social and problematic components – the so-called substituting indexes.

The demographic indexes of migration were used to interpret latent components. Under the crime rate index, the regions where identified as having a crime rate that was lower

than and higher than the average in terms of the criminality index into two groups. The breakdown is stable over time.

During the *fourth stage,* the regions where subdivided into three clusters – the Central-West, the South-East, and Kyiv (the objects assigned to a certain cluster have similar values in terms of the social and economic, social and problematic component and the crime rate. The crime rate value index was not included in the analysis of the principal components but it was used in the cluster analysis as a separate variable which added extra value to the index.

The analysis of the wide range of the empirical data in terms of regions, based on the statistical computations (visual analysis of the indexes breakdown density, analysis of the principal components and the cluster analysis) resulted in assigning Ukrainian regions to the following groups (macro-regions):

1. *The Western region*: Zakarpatska, Ivano-Frankivsk, Lviv, Chernivtsi, Ternopil, Volyn, Rivne oblasts (the crime rate constitutes 602 crimes per 100,000 inhabitants).

2. *The Central region*: Khmelnytsky, Vinnytsya, Cherkasy, Kirovohrad oblasts (784 crimes per 100,000 inhabitants).

3. *The Northern region*: Zhytomyr, Kyiv, Chernihiv, Sumy oblasts (831 crimes per 100,000 inhabitants).

4. *Kyiv region*: The city of Kyiv (1084 crimes per 100,000 inhabitants).

5. *The Black Sea region*: The Autonomous Republic of Crimea, Sebastopol, Odesa, Mykolayiv, Kherson (1,122 crimes per 100,000 inhabitants).

6. *Dnipro region*: Poltava, Dnipropetrovsk, Kharkiv oblasts (1,223 crimes per 100,000 inhabitants).

7. *Donetsk region*: Donetsk, Luhansk, Zaporizhzhya oblasts (1,360 crimes per 100,000 inhabitants).

Along with the crime rate, this criminological typology of Ukrainian regions takes into account the social and economic development of each region. It is stable in terms of time, reflecting the reasons for criminality and the general trends of various social and economic indexes in the regions of Ukraine.

Section 7

The State of Reform of Ukraine's Ministry for Emergencies and the Protection of the Population from Consequences of the Chornobyl Catastrophe

Mykola Chechotkin

Natural and anthropogenic security together with political, military, economic, information and other types of security remains one of the important components of the national security of Ukraine. Today, challenges and threats have a more complex and interconnected nature. Global anthropogenic and natural threats are the source of emergencies in different areas of vital activity. Specific emergencies arise more often, including floods in 1998 and 2001 in the Zakarpattya region (424 settlements were impounded, 38.1 thousand persons were evacuated, 17 persons died, over 4,900 buildings were destroyed and 21,300 houses were damaged); the crash of a SU-27 aircraft in Lviv (241 persons were injured, and 76 persons died); accidents during the years 1998 to 2004 in the Krasnolimanska, Zasyadka, Barakov and Sochinskoho coal mines (311 miners died as a result of seven accidents); a Hepatitis A outbreak in Sukhodilsk; the outbreak of the H5N1 high-pathogenic flu in the Autonomous Republic of Crimea; and the explosions in ammunition depots in Artemivsk, Melitopol and Tsvetokha.

Among the abovementioned hazards, there are other threats related to the storage, processing and transportation of potent poisonous substances and obsolete agricultural pesticides, functioning of nuclear reactors and hydroelectric power stations on the Dnepr and Dniester cascades, wet conservation mines in Donbas, activation of flooding by underground waters and landslide processes.

Considerable anthropogenic loading on the natural environment of Ukraine, which is five to six times higher than in the developed European countries, as well as natural and economic factors led to the occurrence of over 4,200 emergencies of an anthropogenic, natural or other nature during the years 1997 to 2007, including 86 at the state and 332 at

the regional level. Over 4,800 persons died and approximately 22,000 persons were injured during emergencies. Material losses exceeded six billion UAH.

In addition, a few attempts to form an integral system of population protection from emergencies followed the independence of Ukraine; however this issue has failed to progress due to a range of factors.

The purpose of this article is to describe the state of reform of the Ministry of Ukraine concerning emergencies and protection of population from the consequences of the Chernobyl catastrophe (MoE) on the basis of research of civil defence problems, and to propose ways to improve the state management in this area.

Taking into account the purpose of this article, the author plans to provide analysis of historical and objective preconditions for the establishment of Ukraine's civil defence system, to investigate the state of the legal regulation of state authority activity in this area, to assess practical aspects of state management in civil defence, in particular, the single state civil defence system and MoE as the main central executive body, and to propose ways to improve state civil defence management as a component of national security.

History of Development and the Modern State of Ukraine's Civil Defence

Ukraine's modern civil defence system takes its historical roots from the Local Air Defence of the former USSR (hereinafter referred to as the 'LAD'). The LAD was created as a state system of defence of population and territories from military threats and destructive weapons in October 1932. Defence forces and organisational structures were created at installations and in territories prior to the establishment of state systems where they were attached as separate units or structural entities. A corresponding legal and regulatory framework was developed and accepted.

In the post-war period, the tasks of local air defence, its organisational structure, basic measures, role and place of LAD troops, self-defence formations and groups, order of personnel and population training and functions of executive bodies were specified taking into account the military-political situation in the world. Provisions for the USSR Civil Defence (1956) firstly underlined that LAD was a system of all-national defensive measures to defend the population from nuclear weapons and other modern weapons of destruction, create conditions which provide reliability of work of national economy infrastructure under conditions of air attack, conduct rescue activities and provide assistance to the injured as well as hold damage control operations.

The development of nuclear weapons and missile delivery systems radically changed the defence doctrines of many states; greater importance was given to the defence of populations and territories from weapons of mass destruction. Transformation of local air defence into civil defence in 1961 was a response to these challenges. The difference between them, based on the fact that civil defence measures had to provide the protection of the population and territories from damaging factors caused by qualitatively new weapons, namely weapons of mass destructions. The range of civil defence tasks considerably

broadened, including the creation of favourable conditions for industry in wartime, and the protection of citizens in conditions of potential nuclear war. A task to liquidate mass destruction together with assistance for hundreds of thousands of potentially injured human beings took a new level. Civil defence measures were given a national character, and they were planned and taken on the whole territory of country without exception. They were related to every citizen and every group. Civil defence reached a culmination in its development during the 1960-70s.

Moreover, the gradual decline of military opposition and the dynamic development of the economy and application of new dangerous technologies at the beginning of the 1980s resulted in a considerable increase of risks, including large-scale man-made catastrophes, and created objective preconditions for the transformation of civil defence into civil protection. The time required greater 'sensitivity' to non-military threats, the expansion of a range of tasks and increase in the efficient protection of the population from emergencies in general. However, regardless of the challenges of the time, the orientation of civil defence on military tasks led to a one-sided development. The Chernobyl nuclear plant disaster confirmed this thesis and showed that civil defence is not capable of protecting the population and/or territories from natural and man-made emergencies.

In 1987, the USSR government made another attempt to re-orient civil defence to the direct protection of the population from the consequences of natural disasters, large-scale accidents and catastrophes. Unfortunately, it remained only a declaration due to its high militarisation which was confirmed during the Spitak earthquake in 1988. Taking into account the abovementioned issues, in 1989 a decision was taken to create a special agency—the State Commission for Emergencies—within the governmental structure.

A pre-crisis situation, the collapse of the USSR and problems within the young Ukrainian state slowed down transformation processes in the military-oriented civil defence arena. The Verkhovna Rada of Ukraine approved the concept of civil defence of Ukraine in 1992, and passed the Law "On the civil defence of Ukraine" in 1993. The government accepted a range of decrees aimed at the further improvement of civil defence. "The Ministry of Ukraine for emergencies and protection of the population from the consequences of the Chernobyl catastrophe" was created in June 1996 under presidential decree and on the basis of the Civil Defence Command of Ukraine and Ministry for Chernobyl Affairs. The newly created institution initiated the development and adoption of a range of laws, presidential acts and governmental resolutions.

Civil defence and practical initiatives aimed at the protection of the population from emergencies were launched by the MoE. The first forces to respond to emergencies were military units and civil defence territorial commands which were further transformed into regional (municipal) agencies for emergency and population defence which became structural sub-units with double subordination to local authorities and to the MoE.

However, the realisation of MoE functional authorities required a narrow purpose and highly qualified formations to react to those types of emergencies, which could not be managed by civil defence forces.

The "Central Paramilitary Search-and-Rescue Detachment" was created in 1997; a "Poltava Paramilitary Anti-Flow" unit was subordinated to the MoE. The "Main Centre for the Coordination of Air Search-and-Rescue Operations" was created in 1998, and the "State Paramilitary Mine-Rescue Service" was created on the basis of the mine-rescue services of the Ministry of Industrial Policy, Department of Subway Construction and two detachments of the Ministry of Coal Mining; the State specialized in tourist search-and-rescue service and the "State Coordination Center of Response to Emergencies" in Odessa, Kerch, Donetsk, Khmelnytskiy and Tcherkasy were created in 1999. Thus, all available state search-and-rescue services were concentrated within the MoE structure. The legal framework allowed this central executive body to manage emergency responses and involve and coordinate executive bodies at all levels.

The government, as constitutional guarantor of safety and society's well-being, created a clear system of protection for the population and territories from man-made and natural emergencies. A single state system of prevention and response to man-made and natural emergencies was established during this period, a legal and regulatory framework for the protection of the population and territories from emergencies was formed, and reserves of material and financial resources were accumulated.

In 2001, the President of Ukraine determined that the prevention of emergencies and effective liquidation of their consequences were the basic priorities of the government and its central and local executive bodies.[1] However, the MoE remained a substantially paramilitary system for another four years due to the presence of civil defence troops.

Ukraine's orientation towards European values leads more dynamically to the refusal of the term 'civil defence' and the introduction of the term 'civil protection.' This is related to the re-orientation of national and international population defence organisations from purely military tasks to the protection from emergencies in peace time and the provision of humanitarian assistance in emergencies.[2]

Registering and listing highly dangerous objects and territories at risk was firstly done by the state. Measures to prevent emergencies and diminish damages and losses from a natural disaster were developed.

Realising that it is impossible to resolve all problems related to civil defence in national space, Ukraine has established open partner relations with all states ready to fruitfully cooperate in this field in order to protect population from emergencies.

MoE units, as a basis of the national civil defence system, actively participate in international rescue and other humanitarian operations. In 1997, these units conducted a search-and-rescue operation together with Greek forces in the district of Thessaloniki following an air crash of a Ukrainian YuK-42 airplane. In cooperation with representatives

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[1] Decree of the President of Ukraine "On the Measures to Increase the Level of Protection of Population and Territories from Man-made and Natural Emergencies" #80 dated 9 February 2001; http://zakon.rada.gov.ua.

[2] V.K. Vrublevskiy, V.P. Ksionzenko, I.V. Marinich, and H.V. Reva, *Ukrainian Society: Threats from Extreme Situations* (Kyiv: Information-publishing centre 'Intellect,' 2003), p. 432.

from other states, they responded to earthquakes in the Turkish Republic (in 1999), India (in 2001), the Islamic Republic of Iran (in 2003) and the Islamic Republic of Pakistan (in 2005), where the MoE mobile hospital provided medical aid to over 22,000 people. In 2000, MoE forces took preventive measures, responded to floods and delivered humanitarian assistance to the Hungarian Republic, Kosovo, Malopolskiy and the Transcapathian provinces of the Polish Republic, Republic of Sakha of the Russian Federation, and the Czech Republic. The units also assisted the United States in the wake of a hurricane disaster.[3]

The rise of international terrorism requires an increase in the level of national security and protection. Taking into account the abovementioned issues and critically analysing the existing national single state system of population protection and defence of territories from man-made and natural emergencies, a decision was taken to improve the system, and in some cases – fundamentally reform it with consideration of the risks arising from catastrophic processes in anthropogenic and natural areas.

That is why the transition from *civil defence* to *civil protection* commenced in 2003. This transition should considerably improve cooperation between central executive bodies, eliminate the duplication of functions to respond to emergencies and provide for the comprehensive protection of population and territories. Civil defence troops were fully disbanded at the end of 2005, and their forces and capabilities were handed over to Ukraine's fire rescue units.

The civil protection operational rescue service currently presents a basis of MoE forces. This service includes central subordination forces which execute tasks specified by available state programs, to include response to emergencies at the state and regional levels; liquidation of consequences of specific situations related to chemical and radiation accidents; disposal of explosive ordnance, and engagement in operations both on and beyond the territory of Ukraine.

The important component of the system of response to emergencies are the MoE regional forces which operate, as a rule, within the limits of determined administrative territories, but are also engaged in emergencies outside the region of dislocation. 27 garrisons are currently established, including fire-rescue units and special purpose search-and-rescue detachments. Fire-rescue units are created in every administrative district. In most cases, an extension of their functions and responsibilities is considered jointly with local authorities.

Special purpose emergency rescue detachments are created at regional level within territorial MoE departments. The Ministry takes measures to create such detachments in every region of Ukraine.

The territorial allocation of response units within administrative districts has allowed the Ministry to place operational response units throughout the country to engage considerable forces in prevention and liquidation measures, and to shorten response times.

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3   *State Rescue System: Information and Analytical Digest*, MoE (Kyiv: 'Chornobilinterinform,' 2001), p. 70.

In addition, the special state emergency rescue and search-and-rescue services implement specific civil protection tasks in the MoE system of Ukraine, namely:

- The State special (paramilitary) MoE emergency rescue service which is designated in the search-and-rescue maintenance of potentially dangerous objects;
- The State specialised salvation service of tourist search and rescue designated to rescue tourists in mountainous and forest areas;
- The State specialised emergency rescue service for water designated to prevent death, search for and rescue people and to liquidate contamination of waters;
- The State air search-and-rescue service which organises and conducts air search-and-rescue operations using all available MoE forces and capabilities.

The single structure which combines effective control of anthropogenic, natural and fire security and responses to emergencies is now established in Ukraine. This demonstrates the country's transition from a military-oriented civil defence system to civil protection to achieve its primary objective – protecting every individual.

Generally speaking, the system of civil protection for emergencies is one of the basic priorities for Ukraine's executive bodies. The effective legal and regulatory framework should be created to qualitatively achieve tasks in the area of civil protection.

Reform of Legal and Regulatory Framework for State Authorities' Activity in Civil Protection

General principles for the implementation of constitutional provisions to protect the population and economy from the negative consequences of emergencies are regulated by fundamental documents such as the laws of Ukraine "On the protection of population and territories from man-made and natural emergencies" and "On the legal principles of civil protection." Provisions of the Law "On the Civil Defence of Ukraine" are gradually losing their currency and are being included in other legal acts.

Another basic legal act, adopted in 2004 to implement the Framework Convention for assistance in civil protection (signed in 2000), is the Law of Ukraine "On the legal principles of civil protection." This Law, regardless of its limitations, is essentially the basic doctrine of transition from a civil defence to civil protection in accordance with the Civil Protection Declaration adopted in April 1994 at the 10th international conference on civil defence in Amman (Hashemite Kingdom of Jordan).[4]

The Law of Ukraine "On the legal principles of civil protection" is essentially of a transitional nature and undergoing permanent improvements based on the substantive provisions of the Laws of Ukraine "On the protection of population and territories from man-made and natural emergencies," "On the Civil Defence of Ukraine," "On the legal status of state of emergency," "On the legal status of military situation," "On the emergency rescue

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[4] Vrublevskiy, Ksionzenko, Marinich, and Reva, *Ukrainian Society: Threats from Extreme Situations.*

services," "On fire safety," "On the objects of increased danger," "On the use of nuclear energy and radiation safety," "On the provision of sanitary and epidemic well-being of population," and "On the legal status of territory suffered from radiological contamination as a result of the Chernobyl catastrophe."

The law introduces new terms, in particular: civil protection, single state system of civil protection of population and territories, subsystems of the single civil protection system, civil protection service, operational-rescue civil protection service, civil protection forces and capabilities, and unfavourable domestic or non-standard situations (Article 1).

Unlike the Law of Ukraine "On the protection of population and territories from man-made and natural emergencies," Article 4 introduces a democratic principle of voluntary involvement to take civil protection measures related to risks to the life and health of individuals. Article 5 considerably broadens Ukraine's civil protection tasks, in particular providing psychological, medical and other aid to victims, life-support to the injured, prompt assistance to the population in case of unfavourable domestic or non-standard situations, and training in methods of protection from emergencies.

Section II of the Law more clearly determines basic measures to warn, inform, cover in protective facilities and provide evacuation of population, surveillance, engineering, medical, biological, radiation and chemical protection (Articles 7–12, 14, 16).

Separate articles regulate psychological protection, environmental protection and protection of the population from unfavourable domestic or non-standard situations (according to Articles 13, 15 and 17).

Taking into account that civil defence as a system of management bodies, forces and capabilities was created to practically perform tasks aimed at the protection of the population and territories from emergencies in peace and wartime, then today, under modern terms and conditions, this system changes its social orientation. The law regulates activity of civil protection bodies and units. In particular, section VII determines the order of manning the aforementioned bodies and units, section VIII provides for social and legal support, and section IX – pension support.

According to Article 94 the activities of civil protection bodies and units are controlled by the Verkhovna Rada of Ukraine, the President of Ukraine, the National Security and Defence Council of Ukraine, and the Cabinet of Ministers of Ukraine with regard to their authorities and responsibilities specified in the Constitution and the laws of Ukraine, and in compliance with the laws, civil protection is supervised by the bodies of the office of the public prosecutor according to Article 95. In addition, guilty persons face disciplinary, administrative, civil, and criminal liability for violation of the legislation or creating obstacles to the activity of officials in this area (Article 96).

In general, taking into account the threats of the present day and the realisation of Ukraine's strategic direction, the Law defines legal, economic and organisational principles for the implementation of state policy in the area of civil protection, security and defence of population, economy and national heritage from the negative consequences of man-made

and natural catastrophes, as well as minimisation of the consequences of the Chernobyl catastrophe and other man-made accidents.

Considering that protection of the population and economy from emergencies is considered a major function both of the local executive authorities and self-government bodies, these issues were reflected in the laws of Ukraine "On the local state administrations" and "On the local self-government in Ukraine."

In particular, Article 21 of the Law of Ukraine "On the local state administrations" defines that they submit to corresponding councils and secure implementation of regional environmental programs; inform the population about environmentally dangerous accidents and situations, state of the environment, as well as about measures taken to respond to accidents/hazards; organise work to minimise the consequences of environmental accidents, involve citizens and enterprises, establishments and organisations regardless of forms of ownership; submit proposals to stop the activity of enterprises, establishments and organisations regardless of forms of ownership in case of violation of legislation for environment protection and sanitary rules under established procedures.

According to Article 22, measures are taken to prevent infectious disease, epidemics and epizootics. In Article 25, authority is given to establish areas of emergency in natural disasters, accidents, catastrophes, epidemics, epizootics, fires, and other extraordinary events and measures taken to maintain public order, protect the health and safety of citizens, and preserve property. In addition, they assist emergency rescue services during emergencies. In particular, they provide these services with necessary transport and other means and facilities.

Taking into account the tendencies of transition from the sector-specific to functional principle of response to emergencies, Article 31 defines that the heads of local state administrations coordinate the activity of territorial agencies of ministries and other central executive bodies and perform the tasks assigned to these bodies. The managers of territorial bodies from the central executive authority are accountable and subordinated to the state administrations.

Responses to natural disasters, epidemics, epizootics and the creation of emergency rescue units is the responsibility of the village, settlement and municipal councils under the Law of Ukraine "On the local self-government in Ukraine" (Article 26).

Responsibilities include taking measures to liquidate the consequences of emergencies, inform the population, involve enterprises, establishments and organisations, and the population in the activities under established procedures (Article 33); immediate compensation to the citizens affected by a natural disaster (Article 34); creation and maintenance of municipal emergency rescue services at the expense of local budgets, establishment of reserve funds for the liquidation of emergencies, measures related to the support of public order, the vital activity of enterprises, establishments and organisations, rescue and protection of the population, and maintenance of property and material possessions (Article 38).

The Law of Ukraine "On the emergency rescue services" defines the organisational, legal and economic principles for the creation and activity of emergency rescue services, their duties, rights, guarantees of social support and responsibility of rescuers, and issues of international cooperation in response to emergencies.

Special features in the implementation of measures to protect the population and territories from emergencies in conditions of the legal regime of emergency, procedures of its introduction and cancellation of its effect; peculiarities of the activity of state authorities and local self-government bodies, enterprises, establishments and organisations in conditions of emergency are determined by the Law of Ukraine "On the legal regime of emergency."

Realisation of these measures during an environmental emergency, organisational, financial and logistic support, including the corresponding use and protection of natural resources, are determined by the Law of Ukraine "On the area of environmental emergency."

Assessment and response to military-related emergencies is regulated by the Law of Ukraine "On the legal regime of military situation" and amendments to the legal framework introduced by the Law of Ukraine "On the civil defence."

Realisation of specific measures for medical and biological protection of the population from emergencies, and especially: medical aid to injured persons; ensuring well-being during emergencies; implementation of the range of administrative, regime-restrictive and special anti-epidemic and medical measures is determined by the Laws of Ukraine "On the sanitary well-being of population," "On the protection of population from infectious diseases," and "On the veterinary medicine."

The task of supporting the implementation of state policy in the civil protection of the population and territories, handling radioactive waste and explosive material, rescue operations, provision of anthropogenic, fire and industrial safety, labour protection, state mountain supervision, creation and functioning of the system of insurance, and hydro-meteorological activity is the responsibility of the Ministry for Emergencies as determined by the Presidential Decree #1430 dated 10 October 2005.

In addition, the "Concept of protection of population and territories in case of threat and origin of emergencies," "Measures to increase level of protection of population and territories from man-made and natural emergencies," "Measures to improve state administration in fire safety, protection of population and territories from the consequences of emergencies," the "State program of transformation of civil defence troops of Ukraine, bodies and units of state fire fighting in operational rescue service of civil protection" and a range of other acts were ratified by presidential decrees so as to bring the system of protection into line with the norms of international law, EU standards and the economic capabilities of the state.

Coordination aspects of the executive authorities' activity are regulated by the resolutions of the Cabinet of Ministers of Ukraine, in particular "On the approval of provisions on the State commission for anthropogenic and environmental security and emergencies" and "On the approval of the general provision on the special state commission for liquidation of

man-made and natural emergencies, and the general provisions on the special commission for liquidation of man-made and natural emergencies at regional, local and object levels."

The order of support to prevent and liquidate emergencies and their consequences is regulated by the resolution of the Cabinet of Ministers of Ukraine "On the order of financing activities aimed at prevention and liquidation of emergencies and their consequences," "On the approval of order of using funds from reserve fund of State budget" and "On the order of creation and use of material reserves for prevention, liquidation of man-made and natural emergencies and their consequences." The mechanisms used to protect citizens during emergency situations are specified in the resolution of the Cabinet of Ministers of Ukraine "On the order of compensation of losses and damage to the people who suffered from the consequences of emergency circumstances."

Separate issues in state policy on this issue are regulated by the resolutions of the Cabinet of Ministers of Ukraine "On the range of measures aimed at effective realization of state policy in protection of population and territories from man-made and natural emergencies, prevention and prompt reaction to them for the period up to 2005," and "On the approval of the order of classification of man-made and natural emergencies by their levels."

Civil control of the civil protection system consists of parliamentary, presidential and governmental control, and control carried out by local executive authorities and local self-government bodies, by judicial bodies, the office of the public prosecutor, and citizens and public organisations. The subjects of support to civil control are: the Verkhovna Rada of Ukraine; the President of Ukraine; the National Security and Defence Council of Ukraine; the Cabinet of Ministers of Ukraine; ministries, other central and local executive authorities, local self-government bodies; citizens of Ukraine; mass media.

Public information about the protection of population and territories from emergencies is a basic principle and an integral element of the system of civil protection measures. Information about protection of the population and territories from emergencies is publicly disclosed, unless otherwise provided for by the law. It includes information about emergencies, which are forecasted or potentially likely, with identification of their classification, limits of extension and consequences, and means and methods of reaction to them; information about the activity of central and local executive authorities, and the executive bodies of local councils in this area. Central and local executive bodies and the executive bodies of local councils should provide to citizens prompt and reliable data about the state of protection provided, including protection measures, and information about levels of security.

The analysis of the legal and regulatory framework testifies that provisions of the Law of Ukraine "On the legal principles of civil protection," in some cases duplicates and conflicts with the special laws which also regulate relations in emergencies, in particular: "On the protection of population and territories from man-made and natural emergencies," "On the emergency rescue services," "On the Civil defence of Ukraine," "On the fire safety," and "On the local state administrations."

We believe that a negative consequence is the absence of a concept of development of the state system of prevention and reaction to emergencies and collision in the effective legal and regulatory environment because there have been no changes introduced in legislative acts in connection with the adoption of the Law of Ukraine "On the legal principles of civil protection."

Some of the main qualitative limitations which characterise a law-making process include: availability of large number of changes brought into recently passed acts that predetermine the instability of national legislation; disproportion between laws and subordinate legislation, which complicates law-enforcement processes; insufficient systematisation, and so on. However, it should be noted that law-making activity has considerably intensified in terms of the modification of legislation in recent years, which has improved legislation in the civil protection area and, at the same time, provided for maximum coordination in terms of their regulation.

Considering the main priorities in the protection of the population and territory in emergencies, the basic task at present is to improve the legal and regulatory environment, support its adaptation to European standards and its provision of guarantees, rights and legal interests of the population during emergencies.

The effectiveness of civil protection measures directly depends on the efficiency and perfection of legislation. The basis for development of the state system of protection of the population and territory from emergencies is a stable law adapted to the European legislation.

To conclude this part, a legal and regulatory framework on the civil protection has been formed in Ukraine. Legislation for the protection of the population and territory from emergencies should be improved with consideration for the requirements of administrative-political reform and the experience of civil protection systems in the developed countries of the world.

Functioning of the Single State Civil Protection System in Ukraine

The structure of the single state civil protection system (hereinafter referred to as the 'SSCPS') is presented by the central and local executive authorities, local self-government bodies and functional and territorial subsystems. The civil protection system of Ukraine is based on the Ministry for Emergencies.

Functional civil protection subsystems (hereinafter referred to as the 'FCPS') are created by the central executive authorities to prevent emergencies and protect the population and territory from emergencies. The functioning of Ukraine's civil protection system is presented at Figure 1.

Territorial civil protection subsystems (hereinafter referred as the 'TCPS') have been established in the Autonomous Republic of Crimea, regions, in Kyiv and Sevastopol to prevent and liquidate man-made, natural and military-related emergencies within correspond-

ing territories, and include the territorial MoE management bodies and corresponding commissions for anthropogenic and environmental safety and emergencies.

Depending on an actual (potential) situation and the scale of an emergency, the SSCPS can function in daily mode, advanced readiness, emergency situation, state of emergency or war situation based on a resolution of the Cabinet of Ministers of Ukraine, Council of Ministers of the Autonomous Republic of Crimea and corresponding local state administration and city council.

The "mode of emergency" situation is set in case of an emergency and during its liquidation.

In recent years, SSCPS demonstrated its capability to adequately influence anthropogenic and natural threats, and effectively operate in extreme conditions, in particular, during large-scale emergencies.

On 6 May 2004, there was a fire with detonations in Novobogdanivka, the Melitopol district, the Zaporizhzhya region, on the territory of 275th rocket and ammunition artillery base (hereinafter referred to as the '275th RAAB'), where 91,6 thousand tons (in equivalent – 4,800 vans) of explosive items were held. One person was killed immediately with another four persons dying later. Four people were injured. Energy and social infrastructure, transport and other communications were damaged, five houses were destroyed, 15 were considerably damaged, and 585 houses were partially damaged.

Authorities at all levels and the SSCPC coordinated their efforts to organise rescue operations within minutes of being notified about the accident. The Zaporizhzhya TCPS operational group commenced work at the accident site at 3 p.m., and the State commission for anthropogenic and environmental safety and emergencies headed by the Vice Prime Minister of Ukraine started operations at 6 p.m.
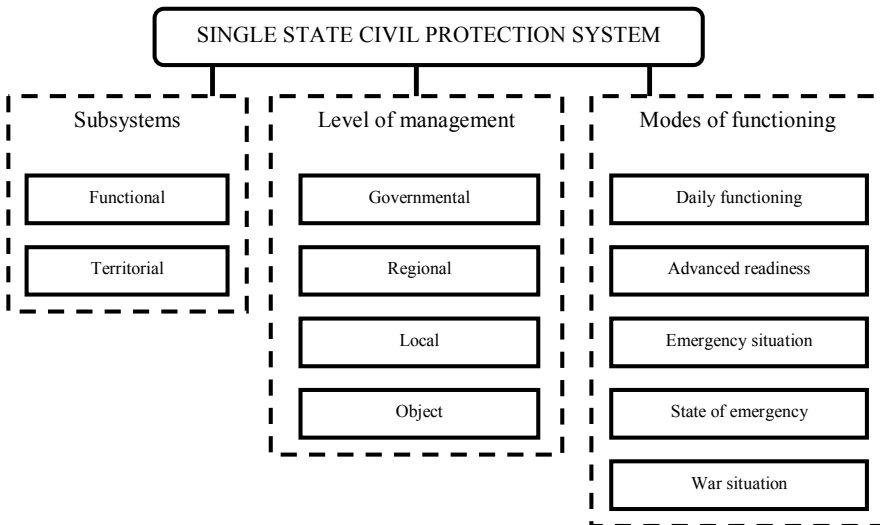

Figure 1: Scheme of Functioning of the Unified State Civil Protection System.

In light of these conditions, the commission took significant measures to protect the population and localise the emergency. Over 6.9 thousand persons were evacuated from a 10-kilometre area using 83 buses, 100 cars and two electro-trains. People were accommodated in hotels, sanatoriums, rest-homes, and hospitals, and were provided with catering, daily necessities, and free long-distance phone calls. Considering the associated dangers, railway, motor and air traffic was temporarily redirected.

All measures were taken to localise the emergency. Armoured fire and special equipment were deployed to the site. 111 first aid and specialised medical aid workers were deployed to affected regions. The restoration of houses and the economy was also prioritised.

MoE and MOD pyrotechnic units cleared settlements, economic sites and territory adjacent to the base from live ammunition over the following three months. This created safe conditions for the population and economic activity. 6.8 million UAH were allocated from the reserve fund of the State budget for primary measures to ameliorate the consequences of the emergency.

80 pieces of MoE equipment, 500 officers, 20 pieces of MoD equipment and 44 officers, 14 pieces of equipment and 360 officers from the Ministry of Transport and Communication, 32 pieces of MoI equipment and 440 officers, and a first-aid brigade and hospital establishments were involved in the emergency response. It should be noted that the operation succeeded in minimising the number of casualties.

Regardless of the potential threat from repeated explosions, the MoD did not begin to dispose of uncontrolled ammunition on the territory that resulted in a fire on 27 July 2005, and in the detonation of 700 tons of explosive items, and rockets which exploded within an 18 kilometre radius and caused trauma to inhabitants in the adjacent village.

The head of civil protection in Ukraine, the Prime Minister of Ukraine tasked the MoE with liquidating the consequences of the emergency at the 275th RAAB based on a presidential resolution.

As of the 31 December 2007, following the implementation of required preparatory measures, the Ministry conducted a surface cleaning of around 132.2 hectares (91.2%) from explosive items out of 145 hectares. 12.8 hectares (8.8%) remained; Substantial cleaning was undertaken over 25 hectares (17%). Approximately 24,000 tons of live ammunition was destroyed and 40,000 tons of explosive ordnance were identified and defused. In addition, all ammunition for 'Grad,' 'Uragan,' and 'Smerch' multiple launch rocket systems was destroyed.

It is impossible to disregard one of the most serious and large-scale emergencies which took place on 16 July in 2007 as a result of a railway accident on the Krasne-Brody railway near Ozhidyv station at Lviv railway. 15 tanker vans with yellow phosphorus derailed. (The cargo shipment was from the Republic of Kazakhstan ('Asa' station) and the Republic of Poland was the recipient ('Oklesa' station). The fire fighters and rescuers, in conditions of high temperature and smoke cover, liquidated the fire in five hours and prevented a thermal explosion of the tankers with around 75 tons of yellow phosphorus; the distribution of toxic products was localised and an environmental disaster was prevented.

On 17 July 2007, the order of the Cabinet of Ministers of Ukraine #530-p ratified the creation of the State commission for investigation of the accident, liquidation of its consequences and provision of assistance to the injured. The governmental commission implemented measures in accordance with a ratified plan of liquidation of consequences of the freight railway accident. Provision of medical aid was provided firstly to children, disabled persons, and the elderly; sanitation points for equipment and personnel were deployed; measures were taken to provide for the safety and security of the neighbouring population.

Following the fire extinguishing operations, engineering equipment and facilities were used to access and transport tankers with yellow phosphorus was utilised, and a range of preparatory measures were taken. Holes and cracks in the first two tankers were repaired and the tankers were loaded onto the railway open-top wagons on 19 July. On 25 July, the other tankers were loaded onto the railway and the remaining phosphorus was collected. On 26 July, tankers with yellow phosphorus were sent back to the 'Kazfosfat' producer (Republic of Kazakhstan) with a special freight train complying with all safety measures. On 28 July, the train left Ukraine.

The territory in the area of the accident was re-planted and approximately 100 tons of contaminated mixture was collected. 120 tons of lime was used to decontaminate the area using 3,250 cubic metres of soil and 1,400 cubic meters of overhead fat land, grass was sown on an area of 6 thousands square meters, the sanitary cleaning of adjacent afforestations was done on the area of 2,730 square metres and train movement was reinstated in full. Considering the results of environmental monitoring in the settlements of Brodivskiy, Burskiy and Radekhivskiy districts, no deviations from operational norms was observed. Advanced environmental monitoring is conducted in settlements located in the area of accident. Rehabilitation and psychological assistance was provided for children affected by the accident.

1,068 people and 113 pieces of equipment were involved in this process. 420 tons of foaming agents and over 9,000 tons of water were used to cool and extinguish fire, and to cover with foam tankers and the territory contaminated by phosphorus.

In accordance with the order of the Cabinet of Ministers of Ukraine dated 26 July 2007 #583 "On the allocation of funds to liquidate consequences of emergency occurred as a result of accident on railway in Lviv region," the Lviv regional state administration was allocated 14 million 815,000 UAH, including 12 million UAH – to provide protection for women and children.

These examples show how resolutions of the Cabinet of Ministers of Ukraine ratified the creation of the governmental commissions, which coordinated actions of central and local executive authorities, local self-government bodies, enterprises, establishments and organizations to liquidate emergency, its consequences and conduct range of restoration operations.

As an interim conclusion, it can be stated that the single state civil protection system was created in Ukraine as a MoE-based structure. The efficiency of SSCPS's functioning

depends on many factors, including the everyday management of civil protection proce-dures performed by the MoE.

Ways of Civil Protection Reform in Ukraine

It should be noted that effective management of civil protection is impossible without form-ing a general culture of safety at all levels of the state. This, firstly, relates to officials who make and administer governmental decisions. With regards to the practical implementation of administrative measures, political, economic, legal, and organisational-administrative mechanisms should be involved. It is necessary to pay greater attention to drafting a new conceptual basis for state policy in the provision of steady development and safety, and elaboration of special approaches to decision-making at the state level. Taking into account a strategy-identified direction of development of organisational civil protection infrastruc-ture, the single state strategy of security and safety of the population should adapt to mod-ern aspects of society.

A drastic increase of efficiency to counter the growing danger of emergency in Ukraine is predefined by an urgent necessity to bring the system of civil protection into line with the norms of international humanitarian law, EU standards and the economic capabilities of the state. Ways to improve civil protection management as a component of national security of Ukraine might include:

1. Continuation of existing policy – functioning of two state systems of protection of the population and territories from man-made, natural and military-related emer-gencies specified in the Laws of Ukraine "On the civil defence of Ukraine" and "On the protection of population and territories from man-made and natural emergen-cies."

2. Creation of a renewed civil protection system adapted to international norms and standards, which organisationally would embody aspects of effective systems of the civil defence and single state system of prevention and response to man-made and natural emergencies.

3. Introduction of the most effective systems of protection used in the developed countries of the world.

4. Refusal from the centralised system of civil protection from man-made, natural and military-related emergencies, and delegation of these functions to the local self-government bodies.

Each of these alternatives has its own advantages and limitations. Taking into account the modern socio-economic condition of the state, development of the legal and regulatory environment, national measures to improve the management of administrative reform, na-tional experience and traditions, comparative analysis of the alternatives supports the in-troduction of the second alternative – the creation of a renewed civil protection system adapted to international norms and standards, which would organisationally integrate posi-

tive aspects of effective systems of the civil defence and the single state system of prevention and response to man-made and natural emergencies.[5]

This model is based on the need to implement joint civil protection measures. It considers the possible influence of physical, chemical, biological, moral-psychological factors, and the necessary organisational, practical and humanitarian measures needed to protect the population and territory in emergencies, including dangers which arise during military operations or as a result of these actions.

The civil protection system supports the creation of a single system of bodies aimed at managing and coordinating actions, and conducting fire-rescue, emergency rescue and specialised formations. A new model of mobile, highly professional and comprehensively equipped operational-rescue units of civil protection should become the priority.

Taking into account the abovementioned issues, it is possible to develop a civil protection management system in Ukraine for the future. The basic direction of development and improvement of civil protection management in Ukraine should be considered a transition from the control-fiscal system to economic principles through the complex insurance of risks and economic stimulation. It should be actively introduced on the principles of economic responsibility as opposed to principles of compulsion. These procedures should more evenly distribute risks, distribute them from the state to insurance companies; and support a transition from a supervisory function to more effective coordination and active implementation of governmental programs for the prevention of emergencies.

The basic tasks of reform in the state supervisory block of civil protection include:

- Transition from fire and anthropogenic supervision to fire and anthropogenic safety service;

- Transition to economic instruments of management in civil protection through the introduction of insurance of risks from emergency situation and fires;

- Transformation of a supervisory block from the 'fiscal' (which represents the standard) to a preventive body; inspection of comprehensive anthropogenic safety methods coordinated with measures to reduce anthropogenic and natural risks.

Other important measures include analysis, legal examination, revision and removal of contradictions in the legal and regulatory framework. It is necessary to define a clear concept of development of the civil protection system, and the basic directions of MoE development taking into account assigned tasks without exception.

Based on the preconditions of the dynamically growing authenticity of emergencies, firstly, at state and regional levels, and the associated considerable human losses, injuries and economic losses, it is necessary to free the central executive bodies from unnecessary tasks and concentrate their activity on the fulfilment of basic functions – prevention and response to emergencies and coordination of these issues within the state.

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[5] M.O. Chechotkin, *Ways of Improvement of State Administration in Civil Protection* (Kharkiv, 2007), pp. 254–259.

Mobile operational response units, while of limited number, should be equipped with the newest equipment and facilities and trained in according to international standards at the central level so as to optimise the organisational structure of civil protection forces and alleviate economic pressures on the state budget.

An airmobile component for search-and-rescue operations and transport support should be created. It is necessary to have units equipped with the means for special operations to liquidate long-lasting emergencies.

Fire-rescue units which should be subordinated to local executive bodies have to be established in the regions. In addition, the '112' service, municipal emergency rescue units, object salvation units, and public rescue associations should be established.

To achieve this objective, it is necessary to provide for the creation of civil protection forces under the Law of Ukraine "On the legal principles of civil protection" and their proper functioning, in particular: the operational-rescue service of civil protection; special (paramilitary) and specialised emergency rescue formations and their subunits; emergency recovery formations, special services of central executive bodies, which are tasked to provide civil protection; special formations for emergencies; aviation and pyrotechnic subunits; technical services, supply subunits and material reserves.

The functions of methodical management, legal and regulatory support, readiness of the civil protection system and policy-making, management and participation in the liquidation of large-scale and specific emergencies should be concentrated at the central management level.

International cooperation in this area would improve the level of SSCPS and MoE readiness that in turn would enhance Ukraine's image in the world, contribute to integration of the state into the world community and increase the national security level.

It is necessary to immediately take the range of urgent measures in Ukraine to adapt the civil protection system to the new terms which complement political reform. Functions should be divided into two levels so as to differentiate duties and responsibilities between central and territorial civil protection bodies. The first level is the central management body; the second level is the territorial management body of local executive authorities.

One of the basic elements of the civil protection structure is "forces and capabilities created to provide safety and security, and prevent and liquidate emergencies that arise in peace and wartime."[6] Such forces and capabilities are subordinated accordingly to ministries and departments, namely: the Ministry for Emergencies, Ministry of Interior of Ukraine, Security Service of Ukraine, and the Ministry of Defence. As a rule, forces and capabilities of the abovementioned structures will participate in the prevention and liquidation of emergencies. Thus, it is natural that the basic direction in support of security includes: "active cooperation with central authorities and organisations engaged in safety and security." This cooperation should be conducted during increases in danger and possible emergency and during the liquidation of their consequences.

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[6] "The Concept of Security of Kyiv City," Annex to Resolution of Kyiv City Council #616/776, 10 July 2003.

Historical experience convincingly demonstrates that the efficiency of national security in the area of civil protection is mainly determined by the quality of assessment of the state in emergency areas and accuracy of forecasting of its progress.[7] The conclusions formulated on the basis of such assessments allow central and territorial management bodies to predict adequate directions for the future development of the security system and to develop effective measures to prevent and respond to emergencies.

Situational analysis requires intervention from the security sector, and is the basic requirement to organise the security system in general and, in particular the forces and capabilities required to liquidate emergencies and determine the modes of their functioning depending on the level of danger.

All these elements predetermine the necessity for permanent monitoring of the current situation, and improvement in its assessment and forecasting so as to develop certain proposals in support of the necessary security level.

On the whole, the current state and tendencies of development are determined by a complex array of stabilising and destabilising factors. The scientific approach to task performance in this area should be based, firstly, on a methodology of system analysis and forecasting theory. An adequate assessment of the situation is only possible on the basis of a comprehensive analysis of cause-and-effect relations and identification of dominating factors.

The central moment in analysis of the emerging situation is determined when dangers become a state of emergency, and when forces and capabilities should be employed to localise an emergency.

As an interim conclusion it should be stated that the principle of improvement of the civil protection system in terms of sharing duties and responsibilities will facilitate coordination efforts between central and territorial management bodies, eliminate duplication of administrative functions and assist in increasing the efficiency in preventing and liquidating the consequences of emergencies through the involvement of all necessary civil protection forces.

New approaches will be introduced whereby emergencies at the local level will be addressed by local management bodies and subordinate forces and capabilities; emergencies at the regional level – by territorial management bodies, subordinate forces and capabilities and other local management bodies; and emergencies at governmental level – by central management bodies, and other territorial management bodies.

Conclusion

The orientation of the state's management of civil protection in line with European standards is supporting Ukraine's ability to respond efficiently and effectively to national emergencies, irrespective of their scale and potential consequences.

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[7]   V.Yu. Bohdanovich, *Military Security of Ukraine: Research Methodology and Ways of Support* (Kyiv: 'Tirazh'), 323 p.

The qualitative improvement of Ukraine's civil protection system within the framework of administrative reform will allow for a considerable improvement in the management and cooperative capabilities of the country's central executive bodies, eliminating the duplication of functions to prevent and respond to emergencies, and providing for the complex protection of population and territories from emergencies up until the end of 2015.

In this context, the unified civil protection system will integrate functions to effectively control anthropogenic and natural safety, provide a necessary level of response to emergencies in peace and wartime and transition from costly methods of management in civil protection to the protection of population not in general, but on the level of individual citizen.

The rational integration of available emergency rescue forces and material and technical resources into a single system responsible for the state of civil protection will allow for the effective prevention and adequate reaction to emergencies.

Creation of branched (a district inclusive) systems of civil protection units and their manning with broad-scope professional personnel provides for prompt reaction in any area of the state.

This research supports the following conclusions:

1. The civil protection system has been developed to protect the population from emergencies. It considers potential threats for Ukraine and its activities are aimed at improving state administration and providing for the stable and continual development of the country.

2. At present, there is a real need to improve the state administration's civil protection system, in particular the unified state civil protection system and the MoE as the main central executive bodies.

3. One activity to strengthen Ukraine's national security is increased efficiency in the state management of civil protection.

To increase the efficiency of the civil protection system of Ukraine, the main agency for civil protection of the population and territories from emergencies is recommended in the Concept of Civil Protection Development in Ukraine until 2015, taking into account predicted socio-economic development. Attention should be focused on the creation of methodological, legislative, organisational and materiel principles of transformation and the development and improvement of management bodies and civil protection forces.

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Gender Aspects of Ukraine's Euro-Atlantic Integration: Contemporary Period and Prospects

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Gender equality is a new component in the modern world. The so-called 'gender boom' which influences the social and scientific fabric of society has nowadays become a predominantly male sphere in the security sector. The abovementioned process has both supporters and opponents. Nevertheless, it is a fact that women have started playing a more significant role in the security sector. This phenomenon can be explained by a range of reasons: women amount to half of the world's population, have equal rights, and make a great contribution to resolving security problems. Women use both their skills and intuition to address social and political issues in the military sphere. There are two views associated with providing gender equality in the domain of contemporary politics: first of all, security policy should focus on this issue, which foresees the necessity to set up a body responsible for guaranteeing women's rights and interests; secondly, it is necessary to support women's participation in decision-making at all levels in the field of security policy. The governments of Euro-Atlantic countries recently addressed the issue of establishing gender equality more actively. Comprehensive consideration of the gender factor has become a priority in Euro-Atlantic integration. Let us analyse the tendencies in the establishment of gender theory in modern scientific discourse and the practical aspects of its realisation in the sphere of security and defence of Euro-Atlantic countries.

Gender in the Period of Globalisation and the Information Society

The contemporary stage of social development is considered to be a milestone in the establishment of the information society. One of the characteristics of such a society is its global nature. The process of informatisation and communication take first place among the most efficient forces influencing its development.

At this point information becomes the structure-forming basis of social development and its production, processing and transmission turn into basic sources of manufacturing,

authority and culture. Partially it becomes possible due to the appearance of new technological conditions. The network logic of a basic information structure becomes centric in such a new form of communication organisation of society and grants it special features and qualities which systematically transform all the principal areas of life – political, economic, educational, cultural, etc.

In the context of the formation of the information society we can observe both the distribution and redistribution of symbolic capital. The value of information increases exponentially and the development of gender theory becomes a burning issue. Their principal value undergoes a dramatic change.

On the one hand, information & communication technology as one of the key factors influencing social and economic inequality also strengthens one of the most conspicuous aspects of inequality – gender inequality. In the majority of countries, the economic, social and cultural barriers arising in front of women limit or eliminate their access to information and communication resources. For instance, the so-called gender digital divide, a significant gender misbalance in the efficiency of their use, is frequently touched upon in social sciences.

On the other hand, objective reality (life itself) more and more often forces us to give up traditional stereotypes of femininity and masculinity. The gender approach is aimed at helping overcome one of the fundamental oppositions – that of gender dichotomy, widespread in all the fields of life in general (political, economic, cultural). The importance of the development of gender research in the context of an information society with its increase in information currents and the intensification of cultural expansion and globalisation has grown significantly in comparison to industrial society. Gender research provides a different (more individualised and improved) approach to the understanding of many basic concepts closely connected with the processes of globalisation taking place in the information society (identity, sexuality, desire to transform, etc.). Such an approach is impossible or not well implemented in other fields of scientific knowledge. In its turn, the abolition of social, political and economic segregation by the gender principle forces society to give up strict stereotypes of femininity and masculinity and take up a more 'sensitive technique' of perception and appraisal of information. The concept of *gender sensitivity* – an inseparable component of social practice and value orientation produced and promoted by society, keeps gaining importance.

In the conditions of the information society there appears a more flexible system of gender role identification. Its introduction owes to various economic, political and ethic reasons. For example, in the sphere of gender economy on the family level the traditional attitude to the profitability of women's homework changes, and there is a redistribution of roles and functions in a family due to economic factors. A man can be a 'house husband' or take a period of leave to care for a newborn baby while his wife continues to work. Such a trend is gradually established by law in many countries. For example, we can study the experience of Scandinavian countries in the field of gender equality and gender balance. People are developing a more tolerant attitude towards sexual minorities and norms of

sexual self-presentation. In the context of a globalised society even the traditional and stable practices, for instance, religious ones, tend to undergo certain changes. In some European countries, it is not surprising to see a female priest.

Many scientists who research gender issues tend to use the terms *paradox* and *intrigue* to describe the situation in ex-Soviet Union states.

The gender approach overcomes the most fundamental opposition – opposition of biological sex, extended to the social, political, economic, cultural and other spheres of people's lives. An individual approach is applied to the demonstrations of identity, in particular, sexual, which to a great extent depends on precise tasks, set by an individual in a given situation – economic, political or other. Here we can see the paradox of the contemporary situation in post-Soviet countries, which takes place simultaneously in the conditions of the transformation of society, its informatisation and globalisation—a situation developing as a conflict between individual and social, subconscious in its perception and value attitude to the main components of the gender theory—concepts of the masculine and the feminine and their interpretation in a socio-cultural context. In contrast to the individual subconscious, the social one proves to be absolutely unprepared to give up traditional stereotypes. Moreover, the existing culture has fixed and popularised these stereotypes in the mass media.

The development of post-Soviet society in this respect is a unique example of the regression of socially significant values to obviously patriarchal ones, to the revival of 'biological' argumentation in determining social, political and other roles established in society, and the expansion of the traditional image of a woman-housewife. In the conditions of an information society the problem of 'gender information' ceases to be merely a problem of social content. It assumes a wider context, as the information field itself is no more black-and-white, clear for both the sender of information (source) and the receiver (consumer). The information society supports this trend, provoking a new gender conflict, at a new level and order. One of the results of this gender conflict is the modern women's movement in Ukraine, where the majority of women's organisations are the attachments of the state or various political forces. As an illustration of this phenomenon we can bring up the history of the party "Women for the Future." Ukrainian society is not surprised by the fact that this movement is not a women's movement because it only consists of women but because its aim is to help women self-actualise as personalities and members of a certain community (family, state).

Gender Issue and Security Policy: Euro-Atlantic and Ukrainian Context

The modern world is characterised by changes in a range of social practices, in particular the most masculinised of them – political and military spheres. The place and role of women in modern social institutions radically changes in terms of widening the domain of their self-actualisation. Women are becoming more and more active in social, political, professional, family and personal relations. Over the period of 2005-06 four women were

elected Presidents in different countries: Angela Merkel in Germany, Michelle Bachelet in Chile, Tarja Halonen in Finland, and Ellen Johnson-Sirleaf in Liberia. Examining this issue in world history, over 30 women were appointed head of state in different historical periods. Women also play an important part in financial activities. The American newspaper 'The Sun' has published research which makes the following prediction: in 15 years the number of women-millionaires will exceed their male counterparts. The reinforcement of the role of women has also involved the military forces of various countries. Such a phenomenon is deeply rooted in history.

Gender Parameter of the Armed Forces: History of the Issue

Women's participation in military formations is viewed as no less significant than men's. Women's participation in military formations should not be regarded as a 21st century phenomenon. The participation of women in military and world affairs has evolved over the course of several historical stages: hetaerism, 'combat friends' in slave-owning society, material and domestic supply of "wagon train women" in feudal society, partial participation in professional and military activity during the industrial (capitalist) stage to the equalitarian approach to professional activity in the military sphere in the context of modern society.

The first evidence of women-warriors appears in historical books dedicated to the Amazons. The Amazons are mentioned by the ancient Greek historian Herodotus (490-425 B.C.) in his description of the war between the abovementioned tribe and the ancient Greeks-Hellenes. The geography of the "female military settlements" is quite vast – from South Africa and Libya to Persia and New Guinea. According to the ancient Greek geographer and historian Strabonus (63-23 B.C.), the Amazons lived on the territory of modern Russia – in the regions of Rostov oblast, Pyatygorsk and the foothills of the Caucasus by the river Terek. Documents prove that in ancient China detachments of women protected the emperor. As for the European armies, the initial period of women's participation in military campaigns goes back to the times of the Peloponnesian war (431-404 B.C.) and the Corinthian war (395-387 B.C.). As early as in the 4th century B.C. there were women in the military formations of the Greek troops in Athens and Sparta. In the European armies women gained the status of full-time members of the military during the period from 1500 to 1650. Since then, when joining the Armed Forces, women signed a contract which clearly stated functional duties according to military specialisation and remuneration.

England is the cradle of the feminised Armed Forces. It was here where the first women's military hospitals appeared in 1653, consisting of the soldiers' wives. They included about 29 women. In 1917-19 within the English military forces there were military formations such as the Women's Royal Air Force, the Royal Assistance Corps of the Navy, and the Women's Legion of the Motor-Vehicle Transport Section which was made up of 100,000 people.

In Russia, the image of a woman-warrior has an ancient historical tradition. M. Karamzin in "The Narration of the Centuries" mentions the fact that as early as in 626 A.D. ancient Byzantine chroniclers claimed: during the siege of Constantinople among the dead

Rus warriors there were women in armour. V. Nemirovych-Danchenko in his book "On Russian Women" informs that Slavic women frightened the enemies unexpectedly during the battle, rushing in the midst of the combat with swords in arm. Princess Olga called the foremother of all the Rus princess had her own troops in Kiev and led successful military campaigns against disobedient neighbours. The stories about Rostov princes speak of Theodora Puzhbolska and Daryna Rostovska, the daughters of Prince Andriy Fedorovych who valiantly fought in Kulikoskaya battle alongside men.

The first document regarding women serving in the Armed Forces was drawn up in Russia during the age of Peter the Great. In that period the Military Statute of 1716 (chapter 34) confirmed the right of women to undertake military service in military hospitals. However, until the middle of the 19th century Russian women generally did not take an active part in military operations of the Armed Forces and did not carry weapons. The only exceptions to the trend were the exemplary formations consisting of women which reflected the whims of Russian empresses. In 1786, on the occasion of the visit of Catherine II to Tavria, under the order of his excellency, Prince G. Potyomkin in the Balaklava-Greek squadron of General Chanoni from 100 "noble wives and daughters of sirs-officers" an 'Amazon company' was formed under the command of Olena Ivanivna Sarandova. The abovementioned formation was of an exotic rather than a military nature.

Due to the fact that women were not allowed to serve in fighting units, many 'penetrated' the Armed Forces out of patriotic beliefs under male names and surnames. For instance, at the end of the 18th century, Sasha Tihomirova commanded a company of lancers under the name of her deceased brother who had served for 15 years in the cavalry. The first Russian woman-officer, the daughter of a hussar captain, Nadiya Oleksandrivna Durova joined the Polish Lancer Cavalry Regiment as a Junker under the surname Sokolov. Russian women awarded the order of St. George in the years of the First World War obtained such an opportunity only under male surnames. During the ceremony Z.F. Smirnova was listed as Junker-officer Evgeniy Makarov, O.K. Tsebrzhinska – under the surname Tsetnerskiy in the office of the paramedics of the 186th Aslanduzkiy Infantry Regiment, Olga Shidlovska, whose two brothers served in the 102nd Vyatka Infantry Regiment, was listed as an outstanding hussar of the 4th Mariupol Regiment, Antonina Palshina—chevalier of two St. George Crosses—fought in the 9th hundred of the Cavalry Regiment of Kuban Division and the 7th Infantry Sevastopol Regiment under the name of Anton.

During the Second World War the women who were most prepared in the military were included in the 'male' units in order to lift the men's combat spirit. Their presence did not allow men to show their moral weakness. For instance, the Communist Union of Youth (Comsomol) Committee Secretary M.S. Demidova, a Hero of the Soviet Union, joined the tank landing forces in the rear area of German Fascist troops in 1942. She personally selected volunteers for the dangerous raid. The meeting with women of the 586th, 587th and 588th regiments had a great instructive impression on men. These and other facts provide evidence that well-oriented educational work aimed at forming a respectful attitude towards

women serving in the military lifted morale in combat conditions, which has a positive result for the outcome of the military operation.

The attitude to women in the Armed Forces has remained controversial until now. For instance, in the contemporary Euro-Atlantic context of women's military service, their professional growth is viewed as principles of the democratic development of society. In post-Soviet countries there is still a sceptical attitude towards women who strive to succeed in their military career.

These arguments are nothing new. For example, a French 18th century philosopher, Cabanis assumed that: "It is unlikely for a person who really loves women to be satisfied to see them marching with a rifle." Commander-in-Chief of the Soviet Republic Vatsetis commented in his book "On the Military Doctrine of the Future" (1923): "We are aware that a man's body after taking part in a two or three year long war is significantly weakened both physically and mentally and is not as useful as it was before. What will happen to a woman in a war? Will a woman's body be able to survive? Will not she die earlier of diseases and exhaustion? The future wars should only be fought by men."

O.S. Senyavska, one of the most famous experts on gender differentiation of the Armed Forces, shares the abovementioned point of view: "Actually the things which women had to see, experience and do during the war were a horrible contradiction to the feminine essence."

According to the administration of the Israeli Armed Forces, at the beginning of warfare the majority of the 36,000 women serving in the women's armed corps 'Hale Nashim' were to be immediately withdrawn from the territory of the engagement with the enemy. In the opinion of Israeli military psychologists, women taken prisoners and their appearance in the case of wounds and injuries would demoralise the men soldiers.

M. Copeland, an eminent military psychologist assumed that weapons may change but human nature remains the same. The nature of women and men is quite different. The research of American scientists from California University in Los Angeles has proven that women and men behave differently under stress. Unlike men who tend to get apathetic or aggressive, women look for ways out of stress situations through communication and taking care of people close to them. According to the results of longstanding research, the difference in behaviour models under stress is a result of the biochemical composition of male and female sex hormones. The female hormone oxytocin helps overcome stress and find a way out not on the level of inner 'self-destruction' but on that of outer interaction. According to American scientists, the communicative, social and professional models realised by women during war are completely different from those of men due to biological reasons. Thus, in the areas of combat, servicewomen mainly occupy positions in the logistics service, in the spheres of medicine and finance. For example, over the period from 1995-2006 128 women-officers, 582 women warrant officers and warrant officers of the Navy and over 2,000 privates and sergeants took part in the liquidation of illegal armed units in the Chechen Republic.

S.L. Rykov, a Russian gender expert specialised in women's military service, conducted a task-specific analysis of the award documents submitted to the Main Personnel Directorate at the Ministry of Defense of the Russian Federation for the servicewomen who had participated in warfare in the Chechen Republic. He reached the conclusion that 86% were awarded Suvorov medals and Zhukov medals "For Personal Bravery and Courage Shown when Defending the Motherland." In total, seven women were awarded the medal 'For Courage.' This corresponds to the status of this state award (only those who showed "personal bravery and courage" directly in combat). Only one woman, senior warrant officer of the 67th corps, L.S. Magomedsaidova was awarded the Order of Bravery, a very prestigious award. These facts provide evidence that no more than 3-5% servicewomen took direct participation in the warfare. These were mainly women from cavalry assault battalions, snipers and nurses who travelled to the communities of the Republic. The remaining women in military service in the Chechen Republic over the period from 1994 to 2006 served in provisioning units.

The history of the Second World War perpetuates the memories of the mass heroism shown by women's aviation regiments 586, 587 and 588. At the same time, there was only one woman in this sector in Hitler's Germany. Her name was Hanna Reich and she was a professional pilot, a captain of Luftwaffe, obsessed with the ideas of fascism. Hitler personally granted her two awards of the Third Reich – Iron crosses of the 1st and 2nd grade.

International Experience of Women's Service in the Armed Forces

Military service has always been the focus of special attention in terms of both feminist and gender analysis due to the acute gender misbalance in this field. Since time immemorial fighting has been considered men's business. The abovementioned motto is probably the best example for understanding gender stereotypes of constructing feminine and masculine socio-cultural practices.

In such a way, the experience of Scandinavian countries demonstrates gender equality as a norm for Armed Forces organisations. As early as 12 years ago, Norwegians ruined the last outpost of men's chauvinism. Captain III rank, Solveig Krey was charged with commanding a torpedo submarine "KOBBEN-C-318." Her compatriots always had a serious attitude to marine traditions and superstitions. According to these superstitions, one of the worst signs is having a woman on board. There is a Norwegian proverb which says: "It's better to have a hole in the broadside than a woman on board." Nevertheless, Solveig Krey did not only manage to join the rank of submariners but also became the commander of a combat submarine, the first woman in the world to take such a position.

According to the data of the world statistics in terms of professionalisation of the Armed Forces, the number of servicewomen in it keeps increasing. The example of Israel can be used as an illustration of conducting a gender policy. Despite the fact that in Israel religion is not separated from the state and unconventional religious, sexual and other social practices are severely condemned by society and the state, women are obliged to participate in

duty in the Armed Forces. In Tsahal (the Armed Forces of Israel) women are represented by a further 5% than in the US Armed Forces, although in Israel the principle of equipping the Armed Forces with servicewomen is different from that in the United States and other countries of the world. Single women from the ages of 18 to 24 are called up on par with men but undertake service in separate units, forming part of a corps consisting of women 'Hale Nashim.' It consists of 36,000 people. However, its subunits are not supposed to be in direct contact with the enemy in conditions of combat. So, in Israel women are not allowed to take part in real combat despite the fact that they are prepared professionally to use standard weapons. Women in Tsahal are mainly responsible for administrative, maintenance, sanitary and medical functions. Unlike the Israeli Armed Forces, the United States Armed Forces does not have all-woman units (nor does it have subdivisions or complements). Women live in military barracks with men, eat in the same canteens, and undertake duty in the same units, for instance, on ships.

A gender analysis of European armies demonstrates that the French Armed Forces are the most feminine ones in Europe with 23,000 women serving. This number represents approximately 7-6% of the total French Armed Forces. Women can occupy any position – from private to colonel almost in all the forces except for the foreign legion, the marines and the crews of submarines. Since 1995, women have been allowed to pilot all types of airplanes including military ones. At the moment, women account for 1.5% of the French pilots. Aviation is the most 'feminised' type of service in the French Armed Forces. At the same time, women hardly ever see duty in infantry or artillery. They prefer military administration, maintenance units, communication and medical-sanitary forces. What attracts women to the Armed Forces? An opinion poll carried out by 'Le Figaro' newspaper showed the following motives: a romantic image of the Armed Forces, patriotism, the desire for a stable well-paid job, the hope to find a partner for family life and also the desire to demonstrate that women can handle 'men's' tasks.

The involvement of women is also noticeable in the Russian Armed Forces. If we take into account all the power departments (Ministry of Defence, Federal Defence Service, Federal Security Service, etc.) whose staff amount to about 4 million people, the percentage of women is even higher – 12.5% .This number is equal to the population of big regional centres: Kursk, Murmansk and Ivanovo. According to the data of the Information and Public Relations Agency of the Russian Ministry of Defence, among 32,000 servicewomen over 5,600 have commissioned grades. Out of these, over 500 are colonels or lieutenant colonels. 26,500 have the grade of warrant officer or warrant officer of the Navy. Women warrant officers mainly occupy positions in the sphere of military economy, headquarters, medicine, communication services, repairs, arms maintenance and the financial service. The average age of women officers (almost 58,000) have the grade of soldier, sergeant, sailors or master sergeants. The majority of women see duty in the Army, Air Force or Strategic Rocket Forces, predominantly working as radiographers, telegraphers, secretaries and medical staff.

In modern society during peacetime about half a million women participate in the Armed Forces. They are constantly joined by new recruits. Over 60% servicewomen work as military medics. 5.2% women are employed in financial service. 5.7% servicewomen are military translators. Communicators amount to 22%. About 15% of women occupy positions in the headquarters and 13% – in the services of military economy.

At the same time, world experience shows a different situation with women in military politics. For instance, the MSC review of the issues connected with women over the last 25 years provides evidence that women are to a certain extent absent or underrepresented in parliamentary defence committees. Women are hardly ever appointed head of such committees or their deputies or even counsellors. The MSC report for 1997 ("Men and Women in Politics: Democracy in the Course of Development") shows that in the parliaments of 97 countries which provided data on the participation of women in parliamentary committees, only 3% women head defence committees. In general, the percentage of women in all the parliamentary committees amounts only to 18.6%. Such a situation can only be explained by two main factors. Firstly, there are still few women parliamentarians in the world. Secondly, there is a dominant worldwide belief that issues of peace are more or less associated with women as opposed to men.

The military sphere has always been a mainly andocentric business with the symbolic capital concentrated in men's hands. Until now even in "gender wise advanced" countries women are not offered chief positions or are offered such offices very reluctantly. In European armies, it is highly unlikely to find 10 women generals. There are more women Ministers of Defence but such cases are exceptional. Women ministers themselves become the focus of the most ardent debates in relation to whether it is acceptable and appropriate for women to occupy such positions. Even a woman holding office of the President or Prime Minister does not generate as much controversial public opinion as woman who becomes the Minister of Defence. Generally speaking, drafting or hiring women on a professional basis can be initiated by political authorities or the result of defence sector itself. It is due to two phenomena which can occur independently: realising the necessity to mobilise the whole population to protect and reinforce national security, and modernisation of the armed forces, which brings an increasing openness in terms of social development, and considers the concept of gender equality.

Some military observers and analysts believe that despite increasing participation in the Armed Forces by women and official support from the state in some Western countries, the gender balance will not change significantly in the near future.

Women in the Armed Forces of Ukraine

The modern Armed Forces of Ukraine are gradually being feminised. The number of women in the Ukrainian Armed Forces has reached 8% of the total number of people in the Armed Forces. As of 2006, women in the Armed Forces amounted to 19,257 servicewomen and 52,307 women employees of the Armed Forces. About 30 servicewomen participated in peacemaking missions, 25 of whom obtained the status of combatant.

At present, 70,000 women partake in military duty in the Armed Forces of Ukraine. 19,000 are officers, warrant officers, servicewomen by contract and cadets in military higher educational institutions. The highest percentage of women is registered in the Army. Over 6,500 women undertake duty in the Air Force and 1,900 in the Navy.

In the Armed Forces of Ukraine four women-officers have the grade of colonel, 32 – that of lieutenant colonel, 216 – that of major, 375 – that of captain or captain-lieutenant, 30 – that of junior lieutenant. In 2001, women-officers amounted to 0.7 % of the total personnel of the Armed Force of Ukraine. In 2006, this figure was 2.25 %. The total number of women officers became twice as large over the period.

Since 1992, 42 servicewomen have taken part in international peace support operations, including five officers, two warrant officers and 35 sergeants and contract soldiers. At present, there are no women in the Ukrainian peacemaking contingent.

To conclude, women are capable of military service and competing with men. This fact is demonstrated both by world history and the history of Ukraine.

Gender Aspects of Euro-Atlantic Integration: International Documents

Conflict-solving and peacemaking are tasks not only for those who take direct part in wars or armed conflict – i.e. for men. The participation of women in peace talks has always been and remains limited even though women have to assume men's duties during war and armed conflict. As practice demonstrates, the involvement of women in decision-making and activity aimed at conflict resolution and maintaining peace requires changes in the traditional vision of men and women in society and conflict situations.

In the context of Euro-Atlantic integration, *the following gender aspects of security policy remain the most pressing*: women and conflict resolution; women in parliamentary defence committees and ministries of defence; women in the armed forces; the participation of women in peacemaking operations. Involvement of women in the security sphere is a component of EU and NATO gender policy. A range of serious international documents have been drafted in the field of democratisation of the gender component in the security sector. The first international document in this sphere was the Declaration ratified during the 4th UN World Conference on Women in Beijing in 1995. In this Declaration, participating countries define an array of regulations crucial for establishing gender equality, namely:

- Women's empowerment and their full participation on the basis of equality in all spheres of society, including participation in the decision-making process and access to power, are fundamental for the achievement of equality, development and peace.

- Women's rights are human rights.

- Equal rights, opportunities and access to resources, equal sharing of responsibilities for the family by men and women, and a harmonious partnership between

them are critical to their well-being and that of their families as well as to the consolidation of democracy.

- Eradication of poverty based on sustained economic growth, social development, environmental protection and social justice requires involvement of women in economic and social development, equal opportunities and the full and equal participation of women and men as agents and beneficiaries of people-centred sustainable development.

- Local, national, regional and global peace is attainable and is inextricably linked with the advancement of women, who are a fundamental force for leadership, conflict resolution and the promotion of lasting peace at all levels.

- It is essential to design, implement and monitor, with the full participation of women, effective, efficient and mutually reinforcing gender-sensitive policies and programs, including development policies and programs, at all levels that will foster the empowerment and advancement of women.

- The participation and contribution of all actors of civil society, particularly women's groups and networks and other non-governmental organisations and community-based organisations, with full respect for their autonomy, in cooperation with governments, are important for the effective implementation and follow-up of the Platform for Action.

- The implementation of the Platform for Action requires commitment from governments and the international community, by making national and international commitments for action, including those made at conferences. Governments and the international community must recognise the need to take priority action for the empowerment and advancement of women.

In such a way, the security policy both in the world and in individual countries should be evaluated taking into account gender equality. For instance, a document of the Norwegian Institute of International Affairs "Gender Issue and People's Security: From Limited Role to Integration of Women in the Peacemaking Process" (2001) highlights the following: "Any peacemaking process where the necessity of women's involvement and their role are ignored, is unnatural. Women are very important for the revival of social and economic development in the course of post-conflict transformation. Women alongside men are both victims and participant of wars and armed conflicts, but of course in different spheres. During a war women get involved in new types of activity, play new roles and often undertake great responsibility. In spite of these changes women are not often enough in demand for establishing peace both in post-conflict restored societies and in international peacemaking operations.

Another significant document, UN Security Council Resolution #1325 (2000) suggests a new vision of women's role: not ordinary victims in a conflict (including violence and rape as methods of conducting war), but as participants in conflict-solving and peacemaking activity alongside men. Such a change in vision foresees the analysis of the activity and role

of both women and men in a war or an armed conflict and after the conflict. It means that gender equality and the gender issue will be considered in the initial stage of policymaking in the corresponding legislation at the national and international level. In this Resolution, the UN Security Council:

- Urges Member States to ensure increased representation of women at all decision-making levels in national, regional and international institutions and mechanisms for the prevention, management, and resolution of conflict;

- Encourages the Secretary-General to implement his strategic plan of action (A/49/587) calling for an increase in the participation of women at decision-making levels in conflict resolution and peace processes;

- Urges the Secretary-General to appoint more women as special representatives and envoys to pursue good offices on his behalf, and in this regard calls on Member States to provide candidates to the Secretary-General, for inclusion in a regularly updated centralised roster;

- Further urges the Secretary-General to seek to expand the role and contribution of women in United Nations field-based operations, and especially among military observers, civilian police, human rights and humanitarian personnel;

- Expresses its willingness to incorporate a gender perspective into peacekeeping operations and urges the Secretary-General to ensure that, where appropriate, field operations include a gender component.

Taking into account Resolution 1325 (2000), the UN Secretary-General presented a report titled "Women, Peace and Security" (16 October 2002). The report defines the influence of armed conflicts and women and girls, the importance of international legislation regarding women's involvement in peace processes, peace maintenance operations, humanitarian operations, reconstruction and rehabilitation and also disarmament, demobilisation and reunification. The conditions for women's involvement in the security sector are stipulated in the following way:

Data

- It is essential to query the proportion of women represented in every branch of the Armed Forces, other state military organisations, the police, intelligence service and training centres. In addition, it is necessary to query the percentage of women occupying senior military positions and officials responsible for decision-making and also the involvement of women in the UN, NATO and other international organisations where security issues are discussed.

Gender Issue, Conflict Response and Restoration

- Ensure that representatives taking part in peace talks consist of an equal number of women and men.

- Ensure that all peace accords brokered by the UN systematically and explicitly address the consequences of the impact of armed conflict on women and girls, their contributions to peace processes, and their needs and priorities in the post-conflict context.

- Ensure that, in efforts to secure local ownership for construction processes, women's groups and networks are actively involved, particularly at decision-making levels.

Gender Issue

- Assert women's participation in peacemaking missions and post-war reconstruction.

- Ensure—by means of legislation where it is possible—that peacemaking contingents and other international forces attend training sessions on gender equality culture issues.

- Demand the punishment of peacemaking contingents or any other international forces that violate women's rights

Government

- Ensure that the representation of women and men in the Ministry of Defence over the last 10 years has been balanced. Verify that women's opportunities for career growth are equal to those of men in legislation and in practice.

Parliament

- Verify the structure of parliamentary committees on defence and security and the level of duties executed by women both in retrospect and at present.

- Verify whether the Committee pays attention to gender issues: focus attention on the regulation of the ratio of women and men.

On 23 October 2007 the Security Council held a debate on "Women and Peace and Security: Implementation of Security Council Resolution #1325 (2000)." Ghana, as Head of Security Council in October 2007, prepared a conceptual document to be used as a guideline for the discussion. In post-conflict situations, it is necessary to pay special attention to the difficulties faced by women. Women are to take direct part in the consolidation of peace on a comprehensive complex basis. It is also important to hold an open debate which focuses on measures, progressive experience and examples of involvement of women in the consolidation of peace. The suggested document states: "Although women play a more and more important part in advance-oriented measures, participating as partners in mediator efforts and peace talks, justice reinforcement, promotion of reconciliation, supporting processes of disarmament and demobilisation and restoration of national institutions, the pace of implementation of Resolution #1325 on the national level and the measures used for it are not sufficient. In particular, it is necessary to mention that in the majority of the countries there are no mechanisms and systems which ensure bringing to responsibility for failures in the implementation of the Resolution. In spite of the progress achieved in the realisation of strategic reforms, law-making and development of the institution basis, there is

still a huge gap between theory and practice, especially on the country level. It is essential to tackle this problem immediately."

A range of conferences held by international organisations provides evidence that the public is taking a more active interest in the issue of involvement of women in the sphere of security policy.

In 2005 in Baku an NGO 'Women-Leaders' under the umbrella of NATO held an international conference on the "Role of Women in New Conditions of Security: Strategic Significance of Gender Factor." This event was attended by women-politicians from member states and partners of NATO and also some neighbouring countries. The members of the conference ratified a Declaration on creating a Peacemaking Centre for Women from Euro-Atlantic Countries within NATO.

In 2006 the Ministry of Youth, Family and Sports together with the NATO Information and Documentation Centre in Ukraine within the NATO-Ukraine Action Plan conducted a conference on "Gender Aspect of National Security and Defence." This event was supported by the OSCE, UN Development Program and the Ministry of Foreign Affairs of Ukraine. Discussion concentrated on working out a new understanding of security through the prism of gender issues as proof of the fact that men and women have their own experience in dealing with crisis situations and also taking into consideration the fact that their needs in the security sector, which frequently differ, are to be considered when it comes to participation in peace restoration operations and also while planning in the sectors of security and defence. At the conference there was a review of NATO activity which was aimed at rationalising the gender issue in the daily work of the organisation or when formulating the rules of behaviour for NATO peacemakers, attempts to establish a gender balance and diversity in NATO bodies or thanks to encouragement of employment and maintenance of women in the Armed Forces. Within the event there was a call-in show with the participation of NATO experts from Brussels. The participants exchanged opinions on the gender issue and the role of women in politics and the Armed Forces of Ukraine and NATO countries.

In October 2007, DCAF together with the EU organised a conference on "Gender, Peace and Security Policy" which focused on the possible prospects of the UN Security Council Resolution #1325 (2000) for the EU, namely – spreading information via EU delegations, military governments and academies; analysis of existing gender practices; determining methods of gender interaction in different spheres of security policy.

In such a way, the international community actively addresses the gender aspect of security policy and assesses democratic principles of involvement of women in the military service.

On the Existing Methods of Gender Research on the Process of Security Sector Reform

Security sector reform foresees the transformation of all levels of civil-military relations. In order to evaluate the importance of the gender aspect in the reform process, it is essential

to compare comprehensive data based on the gender approach, and monitor existing practices and positions in the security sector and civil society. Contemporary international practice supports a range of directions for monitoring and evaluating gender issues, including:

- Research related to the gender approach in security sector initiatives;
- Studying the prospects of the gender approach in the reform of security sector bodies;
- Cooperation and coordination between departments focusing on gender analysis;
- Collection and use of facts related to gender, age and ethnic identification;
- Organisation of gender-sensitive management;
- Defining gender-sensitive factors in the security sector;
- Working with focus groups as gender-sensitive indicators.

The contemporary gender research in this area uses a range of methodologies including separate security sector institutions, donors, parliament representatives, NGOs, etc. The security sector is not a homogenous body as it consists of various institutions providing services for different security sector segments and guaranteeing interior responsibility.

International experts define the following methods of evaluation, monitoring and analysis of the security sector.

Organisations such as the Development Assistance Committee of the Organisation for Economic Cooperation and Development (OECD-DAC), the World Bank, the Institute of International Relation Clingedael and other institutions have developed the methodologies and directives to evaluate security sector reform.

The aim of security sector analysis is to obtain knowledge about the local, regional and international order of security process agents and to define the needs of the population in the sphere of security and defence. The data received as a result of the analysis will contribute to reforming the legislation, planning the security sector budget and defining the efficiency of the security sector reform process.

Gender analysis is the analysis of gender sensitivity in a certain institution or context. The analysis of security sector institutions is aimed at obtaining independent, unbiased results oriented at improving the activity of the institution and guaranteeing its objectivity. Gender analysis promotes achieving aims which have been set on the basis of a systematic and disciplined approach, increasing the efficiency of risk management and actualising the supervision processes in the security sector.

Monitoring is an ongoing process oriented, in the first place, at providing managers and key figures of the security sector with regular feedback and timely evaluation of security sector reform results in terms of progress or failure. Monitoring keeps track of actual work or situation and compares it to what has been planned or is expected according to standards set in advance. Monitoring allows for the collection and analysis of data, the existing

strategies and the results obtained. The monitoring provides the basis for the elaboration of the recommendations on correcting and modifying the security sector.

Evaluation is a systematic and unbiased process of evaluating a continuing or completed project, program or policy, its execution, implementation and results. The aim of this method is to determine the appropriateness and profitability of the tasks set in the security sector reform process, the efficiency of the activity of certain bodies, possible collisions and support. Evaluation should provide useful and trustworthy information. It enables both the receivers and the donors to make the necessary conclusions.

Protagonists involved in the analysis, monitoring and evaluation of security sector reform activities include:

- Members of parliament;
- International and regional bodies;
- Donors;
- Security sector institutions;
- Independent agents (for instance, ombudsman);
- Civil NGOs.

Gender approach is based on investigating specific roles and relations, personal behavioural peculiarities – all aspects offered to men and women by society. In such a way the concept of 'gender' is rooted in the social differences between men and women whereas the concept of sex is in the biological ones. Gender roles vary to a great extent through cultural practice. The gender approach not only studies the social indicators of women but, in the first place, analyses the relationship between women and society.

Gender approach is a process of evaluating the significance of any planned action in the domain of legislation, politics or any large-scale program for women and men.

Apart from the issue of the mandate stipulated by international and regional rights and instruments, the gender aspect is also included in the evaluation of the security sector reform process. It contributes to the productive activity of security services, supports the security sector reform process and actualises human rights issues. Unfortunately, gender approach-based methodology is not always taken into account when investigating security sector reform processes.

Security sector institutions have a mandate for guaranteeing security and justice for women and men, young men and girls. In order to implement this, reform processes should be gender-sensitive and take into account the needs of all people in the sphere of security and justice.

The institution of the security sector and the security sector reform process should be personality-oriented and based on democratic norms and internationally-accepted principles of human rights protection and legislation. One of the key problems associated with a gender perspective is the involvement of all interested parties in the analysis, evaluation

and development of security sector reform processes on a partnership basis. Such involvement not only actualises local authorities but also promotes feedback development.

Reform efforts strive to transform security sector institutions on a more responsible, understandable, democratic and efficient basis. The gender approach stipulates that the protagonists of security sector reform processes should support measures aimed at preventing the discrimination and violation of human rights by security sector institutions and enhancing women's participation in reform processes.

Unfortunately, security sector institutions in many countries turn a blind eye to the policy of discrimination and actions aimed against women or ethnic and religious minorities. Security sector personnel can also violate human rights. For instance, in 2006 an independent survey organised by the UK Ministry of Defence revealed the fact that over two-thirds of servicewomen had experienced sexual harassment. The UN Security Council has also received various declarations on violations of human rights by representatives of UN peacemaking missions. According to experts, despite control enhancement, there is more and more information being received about sexual exploitation and abuse by the representatives of peacemaking contingents. Such a negative experience stresses the necessity to reform the security sector on the basis of gender.

At present, the number of men employed in security sector institutions is much larger than that of women. Even in countries with a relatively high gender parity rate women are less represented in security sector bodies. For example, in the Norwegian police force, women represent 6.4% and 21.7% of the Armed Forces. Such an imbalance is also observed in UN peace conservation operations where women constitute only 2% of military personnel and less than 5% of police contingents. The increase in the number of women in security sector bodies would strengthen public trust and add to their legitimacy. In such a way, according to experts, a police organisation that is homogenous in terms of gender is one of the factors leading to interior strain and conflict.

Gender-sensitive evaluation of the security sector can include data on the number of men and women in corresponding bodies and offices held. Apart from this, there are questions as to the hindrances in complementing personnel with women. This information can be of great importance for the evaluation and control of gender problems in the security sector.

The gender issue can be integrated into the analysis, monitoring and evaluation of the process of security reform.

Though, there is a range of challenges including the gender aspect into the analysis, monitoring and evaluation of the Security Sector Reforming processes:

- Absence of certain groups (for instance, women, young men or girls) in security sector reform and programming of its processes;

- Absence of the gender approach in teams on analysis, monitoring and evaluation of the security sector reform process;

- Difficulties in collecting information about complicated issues;

- Widespread concept of harassment which often consists of public taboos and labels;
- Shortage of financial resources for conducting gender analysis or gender initiatives in the sphere of monitoring and evaluation.

The mechanisms and processes aimed at the analysis, monitoring and evaluation of security sector reform processes are quite contextual and meant for specific protagonists. The standards for this process have not been elaborated yet. Many initiatives in this dimension are relatively new. Apart from this, some gender problems are the result of the context and specific features of a certain culture. It is essential to stress the necessity to adapt the initiatives brought forward to the local context and to consider the potential challenges to be taken into account from the beginning of the security sector reform process.

Thus, there are *international standards* for conducting gender analysis, monitoring and evaluation of the Security Sector Reform Processes:

1. Political Will, *Suitable Time Periods and Sufficient Financial Resources.* Political will plays an important part in conducting gender-sensitive analysis, monitoring and evaluation. Strategy aimed at the identification and support of gender components within the margins of vertical-horizontal management is also of great significance. Suitable time periods and the budgets assigned are crucial too.

2. *Data by Sex and Age.* The data collected for analysis, monitoring and evaluation should always be classified considering sex and age for more precise identification of various security needs and determination of just priorities. For comprehensive analysis it is also helpful to use planning data based on other factors, for instance, profit, ethnic background, religion, region, sexual orientation and physical ability.

3. *Consulting Men and Women.* Interviews and focus groups often do not involve women. For instance, it is important to cooperate with the women's contingent of security sector institutions even if women do not hold senior positions.

4. *Consulting Marginal Groups and Public Organisations.* Active involvement of marginal groups in evaluation, monitoring and analysis processes enhances the probability of conducting a supported and comprehensive reform. Consultations with women's organisations, associations of national and ethnic minorities, village communities, people from needy families, and children's rights defence groups can further prospects in the sphere of reform and guarantee the satisfaction of the rights of civil society members.

5. *Including Gender Issues.* Such issues as gender violence and gender differentiation in terms of access to justice and security should, of course, be taken into account when carrying out analysis, monitoring and evaluation.

6. *Gender-Sensitive Indicators.* Gender-sensitive indicators in security sector reform policy furthermore improve monitoring and evaluation which are aimed at defining the problematic points of reform for men, women, girls and young men.

7. *Gender Informing and Assessment.* Evaluation and monitoring groups should include experts on gender issues. Such an approach will guarantee the priority position of gender issues in security sector reform processes and the application of appropriate methods of

data collection. Briefings or training sessions on gender problems should be conducted for the whole expert group.

8. *Activity of Expert Groups in the Process of Conducting Evaluation and Monitoring*. Expert groups consisting of men and women—international and local experts, representing various public, ethnic and religious groups and minorities—are the most efficient for organising interaction with different communities and guaranteeing access to legitimacy. Both female and male translators should be involved.

9. *Combination of Quantitative and Qualitative Collection of Data and Indicators*. Comprehensive and accurate analysis, monitoring and evaluation should include the quantitative and qualitative element. Quantitative data is easier to evaluate and compare, so, qualitative aspects can be omitted.

10. *Conducting Gender Audit of Certain Security Sector Segments*. Including the gender factor into general evaluation of security sector reform often does not provide exact information to identify key gender aspects of the reform process. Conducting a thorough gender audit of institutions can provide valuable information necessary for carrying out a range of transformations.

11. *Monitoring Priorities and Evaluating Significant Initiatives in the Sphere of Gender Policy*. When significant gender initiatives are implemented within security sector institutions it is essential to conduct comprehensive monitoring and evaluation in order to pinpoint the interaction between initiatives and positive and negative practice, which will encourage a higher level of efficiency of significant future initiatives in the domain of gender policy.

Gender Issue and Security Policy: Analysis of Internet Resources

The Internet, as an interactive and global environment, reacts to the needs of society much faster than the press and offers a more adequate palette of solutions to gender problems in the security sector.

Presentation tactics and strategy of gender problems in the military sphere differs in post-Soviet and other Internet resources.

Post-Soviet Internet Resources Dedicated to Gender Issues

In post-Soviet countries, there are no large network editions, sites or sources dedicated to the women's sector of the Armed Forces. The resources on gender issues are of regional scale and mainly look into the problems of women's survival in the Armed Forces. For instance, the special project Graney.Ru, "Kolokol.Ru" (www.kolokol.ru/army/62659.html), Kazakh Juridical Portal "www.ZAKON.kz" (www.zakon.kz/our/news/print.asp) and the Information Agency ROSBALT (www.rosbalt.ru/2005/08/24/222703.html) from time to time touch upon the issues of receiving less privileges and guarantees provided for women by the law and the violation of their rights. The Yaroslavl Portal "Russia – NATO" (www.yaroslavl.russia-nato.info/adapt/) studies the foreign experience of social adaptation of the dismissed servicewomen.

An Internet Agency called "East-West: Women's Innovation Projects," registered in 1993, is the most consistent source on gender problems including the issue of women's service in the Armed Forces (www.owl.ru/zhip/). It is the leader in promoting the gender approach in social and political life of post-Soviet society. The agency selects and spreads information. The domain of its activity includes the following: news on gender problems, annotations to publications and monographies, research reports, statistical reviews, and projects in the sphere of gender education. The mission of the agency is to promote establishing equal rights and opportunities for women and men by changing public conscious stereotypes through information and enlightenment. Two of the Mass Media registered by this agency are quite popular: the site "Open Women Line" which has turned into a topical information portal "Woman and Society" with a weekly mail out of information digests (www.owl.ru) and a social enlightenment magazine "Woman Plus" (www.owl.ru/win/womplus). These editions highlight the humanitarian aspects of establishing modern Russian Armed Forces: a soldiers' mothers movement, place of women in the Armed Forces, gender stereotypes and service in the Armed Forces, gender equality, world security, psychological issues of women's service in the Armed Forces, feminist theory and women's service in the Armed Forces, rights of servicewomen, democratisation of society and involvement of women in the service in the Armed Forces.

The abovementioned resources are rare examples of reviewing the gender component of the Armed Forces in post-Soviet countries. Official projects – websites of the Ministry of Defence of Ukraine (www.mil.gov.ua/index.php?lang=ua) and Russia (www.old.old.mil.ru/), and government websites partially touch upon gender problems. The webpage of the Ministry of Defence of the Republic of Belarus is distinguished by a quite creative approach. The most popular forum among the pages offered on the site ("Officers' meeting," "Family and the Armed Forces," "Military Education") is "Woman in the Armed Forces."

There has been an obvious trend to involve women in the service in the Armed Forces in post-Soviet countries (Declaration of the Minister of Defence of Ukraine Anatoly Grishchenko about the Necessity to Integrate Women into the Armed Forces. See in detail: www.mil.gov.ua/index.php?lang=ua; preparation of women-officers in the higher education institutions of the Ministry of Defence of Russia. See in detail: www.expert.ru/topics/121569), the gender stereotypes are still quite widespread in society. The way out lies in addressing the following two problems: "Can a Woman Serve in the Armed Forces?" and "Regulatory Support of Women's Service in the Armed Forces." Thus, the level of servicewomen's professional development is lowered due to the fact that society does not yet see opportunities for their career growth.

Internet Resources of EU and NATO Countries Dedicated to the Problems of Servicewomen

Global experience shows that a reasonable gender approach to forming the Armed Forces promotes a transition from issues of traditional security to the problems of human security. The emphasis is made on research, information technology (including banking), and intelligence activity where methods and actions require physical strength and training. Such a

trend provides new opportunities for women, especially in the countries where men and women have equal access to education. Specialized Internet resources widely illustrate the determination of Western society to involve women in the military sphere.

For instance, in Italy a servicewomen's organisation "Anados" (Associazione nazionale donne aspiranti soldato) has its own website (www.donnesoldato.org), where service-women who intend to go into military service can get the necessary information. One of the merits of this organisation is the fact that Italian women can serve in the Armed Services.

Israeli Internet resources examine a wide range of gender issues. For example, the website "Women in the Armed Forces of Israel" (Women in Israeli Army — www.defencetalk.com) has an extensive navigation system. Such sections of the webpage "The Armed Forces of the Defence of Israel," "Women Soldiers," "Women Commanders," "Women in the Armed Forces" offer an extensive source of facts and documents, inter-views with servicewomen and officials, and government documents regarding the gender policy.

As for the government websites of Western countries, the issue of involving women in the military service is viewed as a result of the development of the security sector itself. For instance, the website of the Ministry of Foreign Affairs of Norway provides and comments on acts on the position of servicewomen ("The Position of Women in Norway" – valhalla.ulver.com/f187/t6976.html); the speech of the Minister of Defence of Norway Anna-Greta Stream Ericsson "How to Involve Women in the Armed Forces" has triggered a popular critical forum.

On the website of the Korean Consulate in Japan for servicewomen (www.womenandwar.net/english/) there is active discussion on the issues of legal protec-tion for servicewomen and women's participation in the war. There is also a virtual memo-rial for women veterans.

The wider the range of issues discussed on the Internet, the more developed the sys-tem of public relations becomes in society. The service in the Armed Forces is a free choice for women in the US and society treats women's participation with respect. This fact is also proven by the content analysis of American Internet resources which are, first of all, quite numerous, especially in comparison to the Post-Soviet network space (there are over 450 websites dedicated to servicewomen); secondly, they are task-oriented projects of the government or public organisations; thirdly, they cover a variety of topics; fourthly, they are popular. The analysis of American Internet resources for servicewomen supports the evaluation of the security policy of the US government in terms of its tolerant principle and attitudes to women.

Since 1998 there has been a special internet resource centre for servicewomen and women veterans (www.members.aol.com/veteran). It is essential to mention that the American society does not only treat veterans with respect but also views them as an in-separable part of the Armed Forces: "Alliance for National Defence" – www.4militarywomen.org; "America's Oldest Living War Veteran" – www.amervets.com/oldest.htm; "American Dream" for Active Duty Personnel and Veterans –

www.valoans.com; "American Women in War" – www.undelete.org.military; "Are Americans Losing Respect for Memorial Day?" – www.pacbell.net/veterans; "Army Nurse Corps History" – www.army.mil; "Army Women's Museum" – www.awm.leearmy.mil.

History, memory, lessons of the past – these are the permanent topics of the majority of websites for servicewomen. The memory issue triggers discussions and comments. For instance, on the home page of the website of the American Memorial Centre dedicated to the memory of servicewomen (www.womensmemorial.org) a Brigade General Wilma L. Vauft, president of the Women's Memorial Centre, addresses the visitors: "I am glad to see you at the American Memorial Centre website dedicated to the memory of servicewomen. This webpage is devoted to the memorial to the women in the Arlington National Cemetery. This memorial is unique as it is dedicated to all the servicewomen—past, present and future— and also to all the women who have helped our Armed Forces in all the times and all spheres. Thank you for visiting our website. Please, leave your comments; we will try to answer as soon as possible."

The life of servicewomen in the US is often the focus of attention on the Internet. There are a number of popular resources dedicated to the activity of servicewomen in various military campaigns: "Women in Vietnam" – www.userpages.aug.com; "Women in WW1" – www.userpages.aug.com/captbarb; "Women Mariners in WW2" – www.usmm.org/women.html; "All about Women in Vietnam" – www.illyria.com/nwomen.html; "Images of Army Nurses in the War with Spain" – www.army.mil/cmh-pg; "Medal Lists Project" – www.members.aol.com/veteran; "My Thoughts about Vietnam" – www.home.pacbellgo; "Names" of Americans Who Served in Vietnam and the Persian Gulf – www.members.aol.com; "Vietnam Veteran Wives Home Page" – www.vietnamveteranwives.com; "WASP's WWII" – www.wasp-wwi.org.

Women of different military occupations have their own web pages: "All Navy Women's National Alliance" – www.anwna.com; "Astronauts, Military Women" – www.undelete.org.military; "The Army Nurse Corps" – www.army.mil; "Women Marines Association" – www.womenmarines.org; "World of Women in Military Aviation" – www.womenmilitaryaviators.org; "Intl Org of Women Pilots" – www.ninety-nines.org; "Women in Aviation" – www.women-in-aviation.com; "Women Flag Officers" – www.userpage.aug.com.

Creating web pages for servicemen dedicated to various social and psychological topics provides evidence of the fact that the public takes an interest in the problem of the adaptation of military men to civilian life and to the fact that servicemen are inexorably connected by means of corporative influencing not only to their professional activity but also their social and private lives.

The global nature of the range of Internet resources on gender problems proves the fact that the gender issue is becoming a priority in the world practice of security policy. As an illustration we can use the joint webpage of Britain, the US and Canada ("Military Women" – www.geocities.com/Wellesley/Garden/9201/lynx_mil.html), which provides information about the rights of military women, job vacancies and the participation of women

in military campaigns. Another webpage with the same title MilitaryWoman.org—www.militarywoman.org/homepage.htm—was created in 1996. It is dedicated to women in military service: those serving now, those retired and also those who are only considering joining the Armed Forces. The authors of the webpage claim: "Our website is a meeting place for servicewomen who want to exchange their unique military experience and share information with women dreaming of a military career. It is a website where servicewomen can exchange opinions and experience, enjoy communicating with other military women, socialise with women from other departments to extend their own knowledge and prospects, give up stereotypes, change the system of views, find out information about women veterans and exchange experience." The task of the website exceeds the bounds of ordinary communication. The authors discuss psychological, social and even philosophical issues.

Conclusion

1. Gender theory and research is now a priority of scientific research and its results are of great importance for different social practices, including politics and security.

2. The issue of gender equality in the Armed Forces is a priority in the Euro-Atlantic context. The more developed a society is, the more natural its approach is to the issue of women's military service. The civilised world has changed its value bearings in terms of its attitude to women. They are not just victims of a conflict but the participants of its resolution alongside men.

3. The involvement of women in the military service has longstanding traditions in world history. The Euro-Atlantic space defines the vital role of women in preventing and settling conflicts and in peace consolidation.

4. Civilised countries pay enough attention to fundamental issues such as the influence of military conflict on women and girls; maintaining the regulations of international humanitarian law and international standards in the domain of human rights in order to defend the rights of women and girls during conflict and the post-conflict period, taking into account their personal needs; considering gender prospects within peace maintenance operations; creating efficient mechanisms aimed at guaranteeing the protection of women and girls and also providing their complete and competent participation in peace processes, including negotiations and decision-making.

5. Comprehensive consideration of the gender component in all aspects connected with peace and security requires a task-oriented effort on the part of all democratic states. Defining responsibility at the national level is essential for succeeding in long-term activity regarding the comprehensive consideration of the gender component. It increases the chances of mobilisation and support from civil society groups. The role of international support should also be taken into account.

6. Although women do play a more significant role in taking preventive measures by participating as partners and mediators in peace talks and processes such as the es-

tablishment of justice, supporting disarmament as well as the demobilisation and restoration of national institutions, the process of this transformation is not fast enough neither in Euro-Atlantic countries nor in Ukraine.

7. Currently, there is a huge gap between theory and practice in terms of gender democratisation in the Armed Forces of the Ukraine. The mechanisms of control and accountability, designed for a stable process of introducing positive changes into the position and role of women in the Armed Forces, prove to be of little efficiency.

8. Internet resources are the reflection of the gender situation in society. Their diversity and variety, the wide range of topics and the financial support received from governmental bodies in Euro-Atlantic countries provide evidence of the fact that different aspects of gender equality are significant for politics, legislation and national development in the abovementioned states. In contrast, the deficiency of network resources in post-Soviet countries shows that governments take no interest in resolving the gender problem in the sphere of politics and security. The public is unprepared for a tolerant view of women's role in the Armed Forces.

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Foreign Expert Charles Stibrani on Reform of Security Sector of Ukraine: Votum Separatum[1]

Interview with Charles Stibrani

Reform processes in Ukraine's security sector are supported by the numerous countries which have already undertaken reforms in this area. Foreign defence advisers and advisers from other ministries, which traditionally belong to the security sector, work in Ukraine. Advisers from the US, Great Britain, France, and other countries work in the Ministry of Defence, Ministry of Interior, Ministry of Justice and other agencies. In addition to foreign advisers, other foreign representatives work in Ukraine, implementing the range of projects which assist further reforms. The editorial board of this collection considered the viewpoints of foreigners who support the security sector reform process in Ukraine. In fact, it is often the case that views from the outside highlight those aspects which remain beyond the attention of local experts. We interviewed Charles Stibrani, project manager at 'CUBIC Applications' in Ukraine, to achieve this aim. This company has cooperated with the Ministry of Defence for a long time.

Mr. Stibrani, the editorial board of this collection appreciates your consent to give an interview and discuss your activity on behalf of Ukraine's Ministry of Defence. To start with, could you introduce yourself and your company and its activity in general?

First of all, let me introduce myself and present the company which I represent in Ukraine. My name is Charles Stibrani. I am a professional military officer, and have a sufficient experience of service in the army and a military career reaching the rank of colonel.

The second part of my civilian life is related to the activity of the 'CUBIC Applications' company. Being the representative of this company, I worked in Romania for a long time. Following a promotion I began to work in Ukraine as a project manager.

'CUBIC Applications' represents a whole family of companies which have cooperated for a long time with the US Department of Defense in logistics (especially in transportation). Another major area of activity relates to the development and introduction of simulation and

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[1] Independent thoughts (Lat.)

training facilities for the needs of the combat training of armed forces. I will elaborate on this in greater detail. The company develops a range of facilities for full-scale modelling such as the well-known MILES[2] laser firing imitators. The company also develops comprehensive solutions projects for combat training, one of which is represented by the Simulation Training Centre in Ukraine. I would like to emphasise that, although I play the role of representative, I am expressing my own opinion in this interview which does not necessarily coincide with the official viewpoint of the company or the government of the United States of America.

You have worked in Ukraine for a long time. What projects did your company work on and what are the results?

Before I discuss the company's current projects in Ukraine, I would like to focus on those projects which have already been implemented and the results achieved. During the early years the company focused on the creation of a Simulation Training Centre at the National Defence Academy of Ukraine (UNDA). At the Centre officers have the opportunity to improve their training and get experience in commanding units and formations in combat situations, working with different commands levels.

One of the Centre's achievements was the range of international military exercises such as 'Rapid Trident.'[3]

The mobile simulation training section was also created at the Land Forces Command through the combined efforts of representatives from the company and the Land Forces Command and with the personal support of Colonel-General I.Yu. Svida, the Land Forces Commander. This section is fully equipped with the required computer hardware and software to conduct training in military units. The section consists of 15 officers, and holds a range of exercises in units and formations from the 8th army corps, which improves the operational training of staff officers and achieves cohesion within the command. This section was also used to train peacekeeping units prior to their duty rotation.

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[2] Multiple Integrated Laser Engagement System (MILES) is a complex training system which provides a realistic simulation of combat actions for soldiers participating in military exercises. MILES provides tactical simulation of direct armed engagement using laser 'bullets' which are safe for the eyes. Each participating soldier and type of combat equipment is provided with a 'hitting' registration system which registers the hitting of the enemy so as to receive clear statistics of 'combat losses.' Laser emitters are attached on the individual equipment of a soldier and on weapon systems installed on military equipment, they simulate real shooting distances and the lethality of different weapon systems. It is confirmed that MILES mostly allows for an increase in the level of combat training of servicemen thus improving the efficiency of the armed forces.

 MILES devices are mostly used to simulate direct combat engagement at all levels from brigade, and simulates shots and the effects of hitting from real weapon systems such as M1 Abrams, IFV Bradley, AFV M113, wheeled vehicles and non-shooting targets.

[3] Over one hour the Centre held eight international exercises and 21 exercises with the participation of military servicemen from the Armed Forces of Ukraine.

Mr. Stibrani, you have described projects which have already been implemented and their results. Can you discuss the importance of the company's cooperative efforts?

You are absolutely right. The company provides consultation services in reforming combat training at the level of the General Staff and the Land Forces Command. Today, we are heavily involved in this activity within two working groups at every level. The creation of the combat training doctrine is underway.

We are also introducing MILES into the combat training process. This system can simulate fire, hit an individual soldier and support collective means of fire destruction and military equipment. Combining the MILES system and JCATS simulation allows us to observe the complete reform of the combat training system.

The combat training in any army of the world is the main function of troops during peacetime. Organisation and effective management of combat training for the administrative bodies of the armed forces is extraordinarily important. It should always try to intensify combat training, improve it and achieve the most complete output from invested financial and other resources and involved personnel regardless of the level of learning, whether at the level of an individual soldier, unit, military formation, inter-service or international exercises. It is very important in the days of the global financial crisis to introduce new technologies of forces training to modernise combat training and bring it closer to the requirements of the present.

I would also like to emphasise that the feedback and assessment of combat readiness parameters in accordance with the performance of assigned tasks is also important in combat training. All combat training measures should be studied to determine positive and negative aspects and results. These assessments influence the further development of the combat training system. This assessment is important at all levels from the unit commander to the General Staff level.

Our group was also involved in the training of observers-inspectors which deal with the assessment process. We also worked on the establishment of combat training resources management.

So, you cooperate with the General Staff and the Land Forces Command to reform combat training. Why do you think that this necessity emerged in the Armed Forces of Ukraine?

There is a reason why we need to transform the combat training system in the Armed Forces of Ukraine. Our experience in different countries allows us to conclude that it is necessary.

I would like to note that we are not trying to create the equivalent of the US combat training system in Ukraine. We want to help Ukraine's military command bodies to create a combat training system which meets national political, economic and defence realities, and the current needs of the Armed Forces of Ukraine, but which would also meet Western standards. We see the desire of the political and military leadership of Ukraine and its armed forces to really shift to the format of professional army which would be operationally

interoperable with the armed forces of the leading countries of the world. The President of Ukraine and the Defence Minister clearly expressed their intentions in the 2006 White Book to create Armed Forces that are operationally interoperable with Allied armed forces. The Ukrainian Defence Minister and US Secretary of Defence also discussed the possibility to assist Ukraine to increase national capabilities in combat training in 2006 in Tirana. Thus, we believe that we have political support from Ukraine's government in our intentions to transform the combat training system applying Western standards. The 2007 White Book states that the existing combat training system does not meet modern requirements and should be changed. Thus, our work in this direction meets the intentions of the senior military and state leadership of Ukraine as specified in the 2007 White Book, namely to have trained units until 2015 which would be able to equally participate in crisis response operations with EU or NATO forces.

Modern operations encompassing a wide spectrum of force deployments require the availability of well-trained, well-guided and interoperable forces. Our experience shows that the transformation of combat training supports the achievement of this ambitious aim. Nevertheless, the transformation of the combat training system is a complicated process because of the financial resources required to support it.

The transformation of Ukraine's combat training system is a catalyst for further improvement of the legal framework and revision of doctrine provisions for the deployment of the Armed Forces, reform of military education and development of the armed forces' leadership.

The key moments in CUBIC group's activity in Ukraine are related to assistance for the organisation of the combat training system, and the management of budgetary and other resources for its organisation. We believe that the following components are required to successfully organise combat training of troops:

1. Clear cooperation at the levels of the Defence Ministry, the General Staff and the Land Forces Command to develop coordinated plans of combat training at battalion level.

2. Planning of resource support and budget for national level combat training.

3. Continuation of the development of institutes which deal with combat training.

4. Drafting of combat training policy and doctrine as part of a general national military strategy. The national military strategy should specify the parameters of troops readiness which define the requirements for combat training.

5. Drafting of doctrine provisions at operational and tactical level, training regulations, and manuals.

6. Drafting of a combat training program from the level of an individual soldier up to a military unit.

7. Provision of necessary resources (training grounds, budget, training regulations developed by combat training centres, time, ammunition, etc.).

8. Establishment of an effective system of generalisation and introduction of experience in combat training and results of the actual deployment of UAF units to further improve force training.

Tell us how you describe existing combat training in the Armed Forces of Ukraine? How does it meet the requirements for the future professional army?

The existing education and training management system derives from old Soviet standards based on the training of units and formations; however it does not meet requirements for a future professional army. It is unable to form units that are interoperable with NATO. Their interoperability can be achieved through rapid reorganisation and additional training and not through the existing training system.

Personally, I believe that the Ukrainian leadership should, without any delay, introduce a decentralised order of education and training management oriented to the standards capable of accelerating a transformation of the training system. The rate and volume of reform does not allow the Armed Forces of Ukraine to create a primary operational potential for the future planned term until 2011.

As I stated during our previous discussion, the effective transformation of the Ukrainian forces training system requires a "doctrine of the Eastern standard" as a driving force to ensure and support required changes.

What measures should be taken to transform combat training in the Armed Forces of Ukraine?

Considering such conclusions, we foresee the following directions in the transformation of forces combat training:

1. It is necessary to create an organisation similar to the US Training and Doctrine Command and define new functions for the General Staff and the Land Forces Command which deal with combat training.

2. A new transformed forces training doctrine should be drafted on the basis of the Forces Basic Task List and it should be oriented to the practical indexes (standards).

    Such doctrine should support decentralisation in combat training management, dedicated resource management, and application of new methods of force training (simulation, practical application and multiple integrated laser engagement systems).

3. Development of NATO-interoperable operational and tactical level doctrines and training regulations.

4. Reform of military educational establishments that would include reform of military profile education; development and introduction of a new concept for the training centres (creation of professional observer/inspector corps, creation of realistic battle situation during exercises, creation of oppositional forces); realisation of

basic training for servicemen on the basis of training centres.

I think the military educational establishments of Ukraine have taken a considerable step forward in the military education reform process. I was impressed by the progressive viewpoints on training expressed by future officers at the Lviv Land Forces Academy. At the National Defence Academy of Ukraine there are many professionals with experience in the army who are passing their skills to students.

We only want to give them those instruments which will allow the Armed Forces to conduct this training more progressively and effectively.

5. Creation of the centralised system of generalisation and introduction of experience.

One of the sub-groups from the working group in the Land Forces Command is drafting a concept of generalisation and experience; this concept should be ratified in 2010 and introduced in one of Land Forces brigades for experimental verification.

6. Introduction of the transformed system of assessment and reporting on the combat readiness of troops.

We believe that the success of reforms depends on every serviceman from soldier to General understanding their aims. There is an understanding among the Armed Forces' leadership of the need for such a transformation and sufficient determination to effectively undertake it. We are also proud of the fact that the CUBIC group is helping to create a modern Armed Forces, as the transformation of the combat training system will directly influence their status, development prospects and future outline.

We are also proud that we have had the opportunity to help Ukraine create modern Armed Forces, with the support of the US government, as the transformation of Ukraine's combat training system will directly influence the status, development prospects and the future of Ukraine's Armed Forces.

Dear Mr. Stibrani, the editorial board of this collection thanks you for your constructive interview and appreciates your work in Ukraine.

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