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One of the approaches determine the ways to ensure the military security of Ukraine

Resume. The order of principle account is considered in the article, so-called, wars in “niches” with the purpose of determination of ways of providing of military safety of Ukraine

Keywords: war in “niches”, ranging “of niches”, defensive-industrial complex, military safety.

It is suggested that the ways of ensuring military security of Ukraine are defined by the principle of so-called war of “niches”, invented by Alvin Toffler. The idea of the principle is that one has to identify the “niches” or the advantages that have not been reached by the enemy due to its technological backwardness. The “Niches” can be also determined based on the enemy’s potential to create certain military units and use the most effective forms and methods of combat for such troops (forces).

Today Ukraine is a non-nuclear state, therefore the search of the “niche” that ensures military security is quite actual though complicated issue that requires an application of a modern scientific methods. That is why the purpose of this article is to develop methodical approaches for defining the ways of supporting military security of Ukraine.

The article presents a methodical approach to finding appropriate “niches” in order to ensure military security of Ukraine.

First of all, an overall list of potential “niches” that can be filled by the Armed Forces (AF) according to the armed struggle development trends is determined. Based on the analysis of the future armament production technology development level, defence industry capacities, potential for creating the military forces able to wage war in “niches” and other factors the “niches” that can be filled by probable adversary are determined. For the prioritization of the “niches” the analytic hierarchy process (AHP) is used.

For the determination of the possible “niches” that can potentially be filled in by the Armed Forces of Ukraine in order to conduct a defensive war; the factor analysis that influence creation of effective weapons, and capability to use respective forms and methods of combat by the troops (forces) is conducted. The key factor is the enemy armed forces priorities for filling “niches” that were identified by AHP. In accordance with the factors analyzed, the experts define “niches” that can be filled by the Armed Forces of Ukraine and countermeasures to possible enemy “niches”.

According to the method mentioned, the experts create the options to fill the “niches” of our Armed Forces and the counter-measures to the enemy “niches”. The comparison

of options to fill the “niches” of our Armed Forces is carried out using the methods of taxonomy considering such criteria as the efficiency of the Armed Forces use, cost and timing needed to develop appropriate weapons and the value of military formations creation. The best option of filling the “niches” of the Armed Forces is determined by the maximum value of taxonomic indicator that allows determining the ways of ensuring military security of Ukraine. In order to apply the approach above to justify the trends of the Armed Forces development the analysis of the current state and the forecast of military-industrial complex potential needs to be done, which constitutes a separate task.

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Один из подходов к определению путей обеспечения военной безопасности Украины

Резюме. В статье рассмотрен порядок учёта принципа, так называемой, войны в “нишах” с целью определения путей обеспечения военной безопасности Украины.

Ключевые слова: война в “нишах”, ранжирование “ниш”, оборонно-промышленный комплекс, военная безопасность.

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The problem of consolidation of public administration security sector Ukraine

Resume. Analyzed available scientific, organizational and legal approaches to consolidation of public administration security sector of Ukraine.

Keywords. Defense and military security, governance, security sector and defense strategy.

The article analyzed the available scientific and organizational and legal approaches to consolidation of public administration security sector of Ukraine.

Formulation of the problem. In terms of Russian military aggression, which grew into armed confrontation hybrid, military security and defense of Ukraine remains the most urgent problem today. This according to the current National Security Strategy of Ukraine require consolidated governance to ensure security and defense sector both in peacetime and in crisis situations that threaten national security and the special period, interagency coordination and interaction (p.4.2). Consolidation, as defined in the economic Encyclopedia (Slovopediya) envisages strengthening grouping, unite around the program specific actions.

In the view of some authors, it consolidated management can harmonize and coordinate the activities of various institutions attached to the activities of national security, including in the security and defense of Ukraine to solve a wide range of tasks it identified especially in times of crisis and times of crisis. Now most researchers point to the lack of a unified Ukraine governing body of the security sector and defense and crisis situations. A current National Security Strategy of Ukraine requires substantial defense and security sector in a single complex and closely coordinated its components, integrated unified system of strategic planning and governance, strengthening their integration and interaction.

The article analyzed the available scientific and organizational and legal approaches to consolidation of public administration security sector of Ukraine and is grounded recommendations to address this problem.

By implementing the said strategic objective for the development of the security and defense as a complete functional association controlled from a single center, it is advisable to organize it is consolidated system of government. For this new edition SDB developers offered "a promising scheme" of the system consisting of the Main situational center NSDC of Ukraine and its subordinate units similar other components of defense and security sector.

At the same time, to perform almost similar tasks under the President

of Ukraine has established Coordination Centre and military cabinet as a working body of the National Security and Defense in times of crisis.

It seems that the proposed "system of security and defense sector" in the coordination of this circle is illogical. It can not and doctrinal definition (p. 35), which indicated therein chain departmental situational centers and their resources can be only logistics system of the security sector, not the "main link in the strategic security sector governance and defense "as some authors try to present. In addition, the Military Doctrine of Ukraine stipulates that the level of interaction between the components of the defense forces and public authorities will be enhanced through the formation of interagency it (p.52). NSDC of Ukraine, which wants to put these interagency coordination and management functions in the hierarchy is a coordinating body on national security and defense of a higher level, not the interdepartmental (sectoral) or functional.

Based on an analysis of domestic and European experience, it seems that the organization consolidated governance joint interagency activities of the components of the security and defense of Ukraine this coordination and administrative mission in the defense and security sector Ukraine should put on set already when the President of Ukraine Coordinating Center, which according to The Regulation and its tasks and the execution of orders of the President of Ukraine is authorized to perform similar functions.

Note that the same coordination and advisory bodies of public administration Defense Forces operate effectively under the presidents of Romania and France. This experience can be implemented in the defense and security sector consolidation Ukraine to improve public management, especially in a joint response to its components outlined conceptual documents crises.

Conclusions. Company consolidated state security sector and defense of Ukraine for more effective reaction of its components CROs capable of continuous sustainable management troops (forces) in crisis situations and in all regions (districts) in compliance with the order and rules close cooperation is recognized as one way to achieve elements of the security and defense of Ukraine the necessary operational capabilities.

The problem and the task to consolidate the management of the security sector Ukraine in modern conditions without pitch more updated, which requires timely resolve it as scientifically, so the legislative and organizational plans.

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Проблема консолидации государственного управления сектором безопасности и обороны Украины

Резюме. Проанализованы наявные научно-организационнные и правовые подходы к консолидации государственного управления.сектором безопасности и обороны Украины.

Ключевые слова: военная безопасность, система управления, сектор безопасности и обороны, стратегия.

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The right of states to use force in international relations

Resume. The article deals with the controversy surrounding the ratio of the law and the law of force, the essence of which is as legitimate use of force in international relations. It also discusses the different approaches to support the force and the new conditions that have an impact.

Keywords: the use of force, armed attack, proactive, preventive action, threshold for the use of force.

Formulation of the problem. Today no state agreement, including the UN Charter, does not define the concept of “peace”, “war”, “threat” or “use of force”, “armed attack”. Also not reached consensus on the definition of the modern term “aggression” in any international agreement. As a result, today there is no single scheme of international legal justification to use force.

In recent years there have been enormous changes in the forms and methods used to violate peace and threaten the security of nations and peoples. Gone are the days when the real threat to peace and security represented only state. State boundaries are not an insurmountable obstacle for unlawful penetration into the political, economic, financial, defense, information system states.

In modern terms the question of the use of force was to acquire a new meaning. Art. 51 of the Charter of the United Nations on the inherent right of self-defense have caused serious differences over its use. The **main aspect** of the problem was the time when the right to self-defense.

Presenting main material The fight against terrorism also caused a new understanding of the right to self-defense. Previously it was thought that the use of force in self-defense is only possible when attacking another state. But the events of 11 September 2001 in the US and other examples of attacks of terrorist groups from abroad to the state lead to the conclusion that the right of self-defense can be carried out in response to an attack by any NGOs or communities (especially in Art . 51 of the UN Charter expressly said the attack only state). Also important in this regard was the UN Security Council Resolution number 1535, which gave an important signal of the willingness of the international community and the UN Security Council to continue its line on the improvement of security mechanisms that adequately meet the requirements of large-scale fighting terrorism and others associated global threats based on collective efforts and compliance with international law.

However, the dynamic development of relations between states, new UN Security Council resolutions on these issues, new conflicts that constantly arise and flame up with a

bang, talking about the need for further, detailed study of this issue, taking into account new trends arising from the application of force.

The article is a comprehensive analysis of the legal framework that regulates the legitimate use of force, and determines current trends can change mechanism lawful use of force.

Presenting main material. Instead the legal prohibition of war by a new doctrine of “preventive war” as a way of eliminating international threats. The right to self-defense should not occur before an attack is imminent and disappears the possibility of preventing it in other ways, and therefore need a new legal regulation possibility of the use of force in self-defense within the period of time between when exhausted other remedies, and the time of attack.

The contradictions related to the ratio of power law and force, is how legitimate use of force in international relations. For this purpose it is necessary to conduct comparative legal analysis of the sources of international law governing the scope of the fighting countries and individual cases in the practice of international relations.

Scheme legal conditions for the use of force are as follows: close to the threshold state of the world is the international life, such as normal trade, diplomatic and consular relations and breaks them; boycotts, suspension links, war or economic sanctions. Then, with increasing tension in interstate respects may experience conditions that the international community defined as “a threat to peace”, “threat of force”, “armed attack”. These states are approaching the threshold range of state of international relations, which is defined as “war”. Also there is a state of relationship, not strictly legally established that states can decide for themselves how fair terms to refer to armed violence (the start of hostilities).

The state, according to its national interests, and national power-state enemy determines any act of the enemy as exceeding the threshold for a "threat to peace", “threat of force”, “armed attack”, after which it appears “inalienable right to self-defense“.

In this case, senior government officials may make statements about the apparent ineffectiveness of the system of collective security, the existence of customary law on self-defense, and the creation of circumstances where use of force is legitimate, including the actual armed attack on the territory of the State or, for example, its people or objects outside national territory. After that a decision on the use of force and military actions begin informed the UN Security Council. Only in such a system of rules of conduct state expertise carried out in accordance with international law.

Analysis of contemporary doctrines and practices of countries shows that in real life the international system of principles of the UN Charter does not impose insurmountable limit to appeal to the power of states and allowing them to use it to restore justice in their own understanding, conducting reprisals, warning of threats to national security.

Each state - a victim of the attack has only inherent defensive capabilities that are determined by its geographical, resource, demographic, economic, political features. The higher the relative threat, the more likely that pre-emptive

action will be more important and the more significant justification provided for carrying out pre-emptive action to the point where the opponent has made all preparations and implemented aggressive intentions. For example, the lack of opportunities to build the state defenses in depth or lack of mobilization of resources, lack of time for their deployment or transfer from other areas of the state can be the basis for preventive action.

Thus, based on the justification of self-defense is the legitimacy proactively correct assessment of the enemy and that there is sufficient time to make the necessary decisions and actions, the inevitability of an attack. Most states claim a legitimate recourse to force in circumstances of armed attack or threat of inevitable attack.

Using a number of scientists (especially Russian) formula as “a preventive use of military force must be understood as counteracting the inevitable and obvious threat, but under preventive - impact on the potential and predicted its sources”, “availability of immediate and great danger threatens life important interests of the state and leaves no choice other means and time for reflection”, “minimum intrusion into the scope of the principle of territorial integrity”, “the object of protection is a human right”[3], experts say, do not give any reason for creation whose legal grounds of force, like ground - only the use of force against objects defined and legal relationship resulting from this.

Thus, it is obvious that to determine the object of international legal enforcement of the armed forces must establish a connection between the objects and the use of force legally prevailing in the use of force against these objects.

In Russia, researchers often use the term “preventive” action, which is wrongly equated with the term of advance. However, some Russian researchers define this difference...” In international practice on this issue advance (preemptive) is considered as the elimination of direct or close the threats and prevention - (preventive) as the elimination of the threat that is not a direct or close to, that is outside the direct and obvious threat. In this approach, the legal side of proactive and preventive military strikes different ... Thus, preventive and proactive measures are the two independent activity and, in particular, their legitimacy”.

Obviously, the differences in the actions based on the criteria of immediacy of the threat. However, this criterion is very difficult to use by the military government, if it is not connected with real force.

Conclusions and recommendations for further research. Military force is an essential tool of public policy and national security of one of the main means of achieving foreign policy goals. Thus, the right of states to proactive action in various forms is justified under the UN Charter, but the data frame can not be rigidly formalized due to lack of uniform perception of different groups of states objective basis in the process of qualifying the actions of those countries that have resources to protect its national interests and thus for the formation of international law in the

field of force. Whereas, proactive use of force today is the inevitable element of international relations, not international law, and international morality is opposed to proactive action.

The prospect of **further research** and analysis is to study the conceptual basis of a military force in the civil national security policy of the leading countries.

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Право государств на применение силы в международных отношениях

Резюме. В статье рассматриваются противоречия, связанные с соотношением силы права и права силы, суть которого состоит в том, насколько правомерное применение силы в системе международных отношений. Также рассматриваются разные подходы, для обоснования силы и новых условий которые имеют влияние.

Ключевые слова: применение силы, вооруженное нападение, упреждающие действия, превентивные действия, порог применения силы.

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Requirements for selection of unmanned aircraft systems to perform reconnaissance and surveillance tasks

Resume. Reasoned request to the choice of unmanned aircraft systems for the tasks of intelligence and surveillance, taking into account the experience of the leading countries on the development of unmanned aircraft systems, as well as the experience of modern wars and local conflicts.

Keywords: unmanned aircraft systems, intelligence, surveillance.

The problem. A wide variety of reconnaissance and surveillance, which were necessary for solving with the use of *unmanned aircraft systems* (hereinafter *UAS*) in the interests of the Armed Forces of Ukraine, the State border service of Ukraine, National guard of Ukraine and the State service of Ukraine for emergency situations pointed to the absence of a generalized methodological approaches to the development and systematization of requirements regarding the choice of UAVs to perform reconnaissance and surveillance.

As shown by the present Ukrainian experience, each subject of Executive power separate from other attempts to solve the issues of usage of various Amateur UAVs and develop requirements for UAS that is not considered effective in terms of world experience. It was repeatedly emphasized in the period 2001-2013 in a number of scientific articles and monographs. However, the current state of the issue regarding the development of requirements associated with the creation or procurement of the unmanned aircraft system identifies its problems and relevance in the present time.

The purpose of the article. To systematize the formation of requirements to the choice of UAV to perform reconnaissance and surveillance.

Presentation of the basic material. Most countries in the world dealing with the problems of technical re-equipment of its armed forces, paying special attention to the issue of development of unmanned aviation. The creation of UAS has been caused, primarily, by the desire to ensure the safety of the pilot and reduce the cost of manufacturing the aircraft that led to widespread use of UAV in combat operations [1-4]. These factors continue to determine the relevance of the topic of the UAV, but the experience of using UAV in the modern military conflicts there are many factors which in some way influence and shape the future of the unmanned aircraft system.

UAVs are increasingly used worldwide to solve a variety of tasks and outside interests of the armed forces: reconnaissance of fires, monitor the development of emergency

situations, surveillance from the air for what is happening in remote places of the countryside, the monitoring of borders, the change of boundaries of land, forests, rivers, administrative units, etc.

From time to time in our country there was a question regarding the development of such promising areas as the creation of the unmanned aircraft system. Despite its relevance, effective measures on the part of potential customers didn't happen until the beginning of hostilities in the South-Eastern region of Ukraine.

The numerous media reports is the fact an active creation of various type and purpose of the UAV from a number of firms and individuals, which have already been tested during the active hostilities during anti-terrorist operation and provides for serial creation on their basis of the unmanned aircraft system and the further use in the implementation of reconnaissance and surveillance.

Together with this outside the field of view remains the working out of the methodical approach to the systematization of requirements, which should be the base for the development or procurement of the unmanned aircraft system.

Tactical and technical requirements for UAS, the composition of its useful equipment are specified, usually a list of objects of exploration and observation requirements for exposure and the level of recognition (type, class, species), weather conditions, time of year, time of day, characteristics of terrain, ways and means of masking these objects, as well as the impact of radio-electronic suppression and electronic warfare by the enemy at the time of observation (Fig. 1).

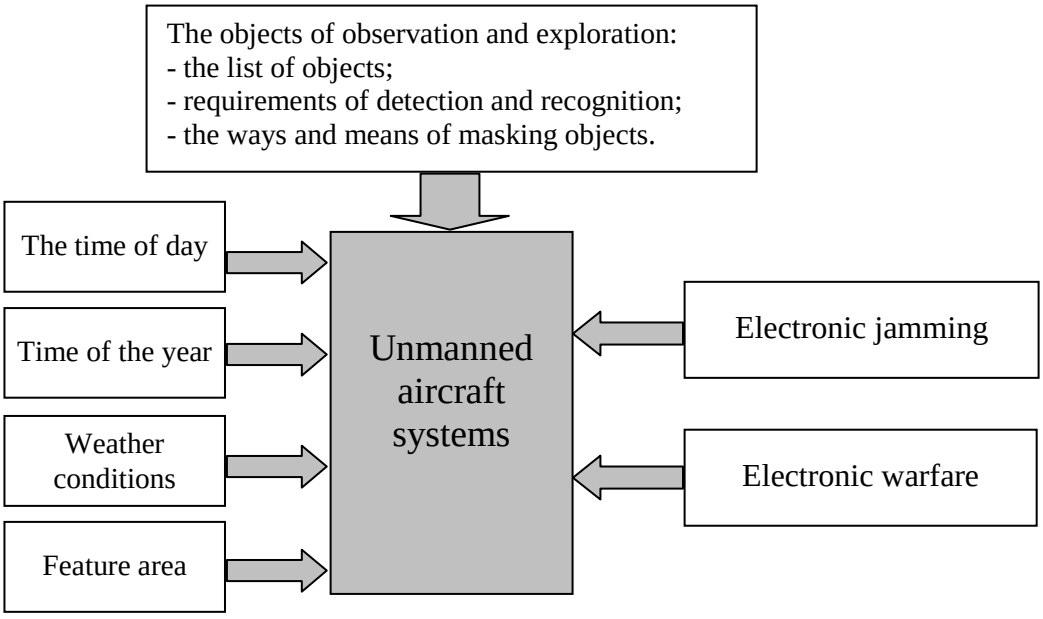

Fig.1. The formation of the tactical and technical requirements

The development of tactical and technical requirements preceded by a nomination of operational and tactical requirements in which you need to identify the list of typical tasks, the list and characteristics of objects of reconnaissance and surveillance, tactical elements of combat (operational) use of the unmanned aircraft system, as well as quantitative

criteria for evaluating the effectiveness of the UAS (Fig. 2).

This should draw attention to the fact that the advantage must be granted the unmanned aircraft system, produced at a factory basis. The company must provide spare parts to perform repairs with factory replacement parts and equipment, and the repair and replacement of the engine and the housing of the UAV. Such a complex can be put in perspective on the weapons included in the technical provision of the relevant service.

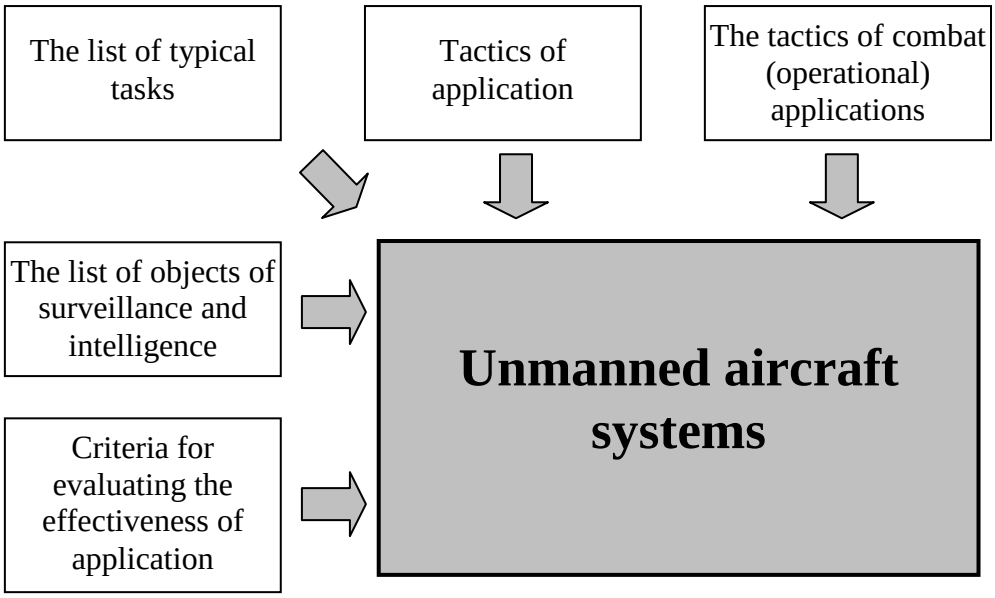

Fig.2. The formation of the operational-tactical requirements

For classroom training of operators on tactics for monitoring and identifying objects intelligence and surveillance need specialized flight simulation UAV with playback of a variety of typical site conditions.

You must also have a permanent cycle of training and advanced training of UAV operators and specialists in maintenance and repair of the unmanned aircraft system.

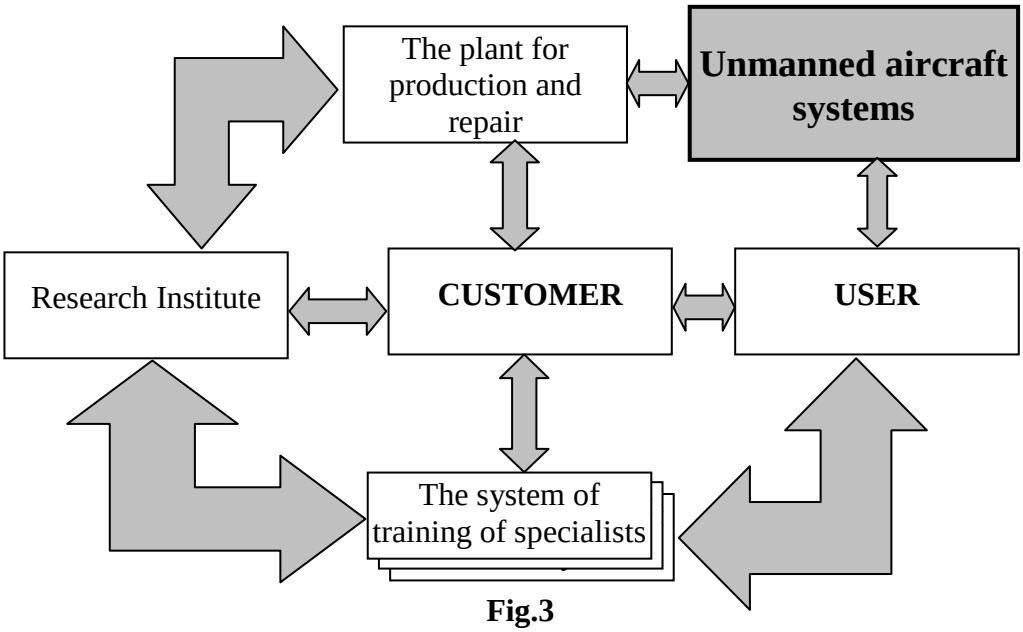

Fig.3

Training for UAV operators, as experts on intelligence and surveillance, should be adequately reproduced on a specially constructed training area in the direction of the customer all the required features using the terrain elements and artificial elements camouflaging.

For the realization of the project "the use of unmanned aircraft systems" is proposed to create an appropriate system of training (see Fig. 3).

Conclusions. Summarizing, we should emphasize that now is the time of active use of the unmanned aircraft system to effectively address the problems of reconnaissance and surveillance for military and civil purposes. The adoption in the near future on arms or technical support to the relevant services of the unmanned aircraft system is a matter of relevant, timely and has a vision.

Areas for further research. Further research needs to occur in the following areas:

- develop or purchase a ready-made unmanned aircraft system capable of performing the tasks of reconnaissance and observation
- the creation of a special training grounds for the training of UAV operators
- creation of specialized units in the immediate users whose activities will be related to the use of the unmanned aircraft system
- development of guidance documents on the use of the unmanned aircraft system, including guidance on flight operations of the UAV.

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Требования к выбору беспилотных авиационных комплексов для выполнения задач разведки и наблюдения

Резюме. Обоснованы требования к выбору беспилотных авиационных комплексов для выполнения задач разведки и наблюдения с учетом опыта ведущих стран мира по разработке беспилотных авиационных комплексов, а также опыта современных войн и локальных конфликтов.

Ключевые слова: беспилотный авиационный комплекс, разведка, наблюдение.

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Paradox asymmetry in modern international armed conflicts

Resume. The analysis of the relationship between the concepts "asymmetry" and "power advantage" outlined ways to achieve asymmetries in the modern military conflict.

Keywords: asymmetry of the armed straggle, balance of power, superiority of forces, means and methods of warfare, new technologies, new physical principles, way of combat actions.

Formulation of the problem. Today the great attention of researchers attracted asymmetric phenomenon of armed conflict, which is defined as cases of political defeat of developed countries in armed conflict against the weaker opponents. Modern wars in Iraq and Afghanistan show examples of the phenomenon, when developed, equipped with high-tech weapons powerful countries could be vulnerable and unprotected, and the available military force is insufficient to provide the necessary level of safety and neutralize dangerous opponents. Identifying patterns ambiguous result of armed conflict between developed countries and weaker opponents helps to take a fresh look at the dynamics of international relations in the sphere of military security. Relevance of the research problem for Ukraine due hybrid war in the east of Ukraine and the annexation of Crimea, which is a kind of phenomenon of asymmetric conflict. The fight against international terrorism and neutralize the armed conflict in eastern Ukraine requires understanding of the logic of asymmetrical conflicts, develop the necessary analytical tools and strategic knowledge for an adequate response.

The **article is an analysis** of the paradox in contemporary asymmetric armed conflict and its impact on the solution, the process and ends the conflict.

Presenting main material. Any aggressor in preparation for war provides advantages over the enemy. Failing substantial benefits, it just starts fighting and abandons their plans. The advantage may be quantitative, qualitative or quantitative and qualitative. It manifests itself in the characteristics of weapons, combat teaching personnel or skills of organization of combat and achieved buildup of combat and strength of forces (capabilities), their rational organizational structure, using the best management systems, the choice of forms and methods of fighting most fully meet the requirements of the situation. Availability of this benefits one party over the other and causes asymmetry armed struggle at least initially.

The most cursory review of the literature on armed conflicts in international relations in recent years

shows that the relationship “asymmetry” isolated as a significant element analysis – “asymmetric threats”, “asymmetric warfare”, “asymmetric conflict”. Often the concept of asymmetry is used to characterize the relationship between comparable in strength and status opponents. Except for a few literature-military strategic and legal nature, the concept of asymmetry typically indicates the paradoxical relationship in which a weaker adversary is able to cause serious harm and even stronger to impose their will and strong opponent can not always defend their interests and subdue the weak.

Analysis of the strategy and tactics of the weak against the strong is the essence of the study asymmetric relations. And if the theorists and analysts are more interested in answering the question: “Why can win the weak or what caused the defeat strong”? For practitioners (politicians and military) important search for the optimal treatment strategy in such situations.

After the attacks of 2001, the term “asymmetric threat” used on international terrorism and the need to prevent acquisition of WMD by international terrorist groups. Paul Wilkinson, director of the Center for the Study of Terrorism and Political Violence (University of St Andrews, UK) called the situation "implementation force weak against the strong weakness". The beginning of military operations in Iraq (2003) and the failure of the coalition strongest states end the war according to the original plans - to establish full control of the country after the defeat of its forces, the transition of military operations in a guerrilla war experts qualify as an example of the classic “asymmetric conflicts” and compared the war in Vietnam. In the Iraqi conflict has found itself a clear imbalance of power capabilities of opponents, their status and the tactics of war. Guerrilla war under occupation or colonial rule, national liberation movements have been credited to the category of asymmetric conflicts in the 1960s. Today's realities are forced to return to their analysis as a special type of armed confrontation. Highlighted items matching these cases, you can identify some of the main features asymmetric conflicts:

- unpredictability result in apparent discrepancies security capabilities and status warring parties;
- use a weak member search strategy “strong weakness”;
- address the weak side to prohibited means of warfare;
- tactics “indirect” military action that applies weakness;
- failure of a strong side to defend their position and reliably suppress the weak.

Thus, specifying this definition, we can say that the asymmetry characterizing the conflict paradoxical situation in which a strong enemy is not able to protect themselves and achieve victory over the weak. In most such conflicts weak opponent is not able to obtain a military victory over the strong. But first, as a rule, can not impose another beneficial to him (weak) the nature of the conflict. In this sense, weak imposes strong their will and thus reaching political victory for which, in fact, used the power in terms of the classical definition of war.

Since the 1960s, the concept of asymmetry was used to analyze the conflict between developed countries and developing countries. She engaged in international affairs, political scientists and military experts. Exploring the paradox of asymmetric conflict and attempts to construct theoretical studies reflected in the works of many researchers. In these works repeats the idea that the success of the military campaign in such a conflict depends not only on potential opponents of power, but on the interaction of factors of military-strategic and tactical victories of non-military factors, i.e. political, psychological and ideological parameters of the situation. It is noted that, to achieve the required goals victory war society belligerent countries - their legitimating. This factor is crucial for strong and to the weak side.

An important methodological challenge in forecasting prospects for armed conflict is not just a comparative study of the possibilities of the warring parties, and identify opportunities both symmetric and asymmetric use of certain components of their potentials. With such analysis is important to highlight how relatively stable (“structural”) and variable (“Dynamic”) characteristics of conflicts. During the first mean power and resource capabilities, legally and legal status of the parties, their aims, state the communities and their attitude to this conflict. Second - is available in each of their sides’ strategies and tactics used to compensate for the obvious power disparities.

The desire to take into account the specificity of asymmetric conflict was evident in foreign policy throughout the second half of the twentieth century. First, the state tried to modify the strategy of military action, taking into account the fight against relatively weak opponents. In this sense prevailed following trends:

- development scenarios direct military confrontations limited scale (strategy of "local wars", "limited wars", "low intensity conflict");
- preparing the armed forces for combat small in numbers of trained contingents of troops;
- conducting preventive action against militias using data intelligence and intelligence network;
- the implementation of measures to ensure contact with the local population, under the banner of protection which supports a weak opponent, as well as providing military and financial support to groups of their supporters in local communities;
- limiting the scope of military operations and the transition to non-military means of pressure on a weak opponent.

Conclusions and recommendations for further research. The analysis of the concept of asymmetry regarding the scope armed warfare and war in general allows drawing some conclusions.

1. Categories "asymmetry", "power advantage", "correlation of forces" are interrelated and mutually conditioned. The use of asymmetric warfare action is not an end in itself, but the method of achieving advantages in force. Conversely, any advantage in the power

of one over another opponent creates an asymmetry of armed confrontation.

2. Asymmetry in armed struggle achieved technical, tactical and organizational measures and better - their totality. The use of new (better) weapons, implementing new (unexpected, unusual for the opponent) method, provided the competent (adapted to the ways and means) organization and actions of troops - the key to success in battle, battle, transaction War.

3. Excellence in arms and military technology (IWT) is achieved through evolution through constant and systematic work of scientists, designers, workers of defense industry to improve and equipment. Given that the same work is done in other states, there is an asymmetry which insignificant and unstable. The emergence of asymmetry caused by the creation of fundamentally new means and methods of warfare (weapons on new physical principles and tactics of its use) is significant, but also unstable over time.

4. The asymmetry in the economy is a prerequisite and necessary condition for achieving the asymmetry in the armed struggle. Create something out of nothing, to gain an advantage, not a cost of resources - attractive, but unrealistic.

5. Symmetry in military-strategic level required in peacetime to maintain peace. It is provided by the presence of potential opponents such weapons, which ensure the task unacceptable harm to each other from the beginning of hostilities. When the war began, it is advisable to have asymmetry in their favor, and what will strive conflicting parties.

6. The easiest way to achieve asymmetries in the modern military conflict with a powerful enemy - search even more powerful ally.

7. As the experience of recent years (Russia's annexation of Crimea and aggression of Russia in the east of Ukraine) the further study of asymmetries in the modern armed conflict and the search for new ways of conducting armed struggle is extremely relevant.

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Парадокс асимметрии в современных международных вооружённых конфликтах

Резюме. Проведён анализ соотношения понятий "асимметрия" и "превосходство в силах", изложены пути достижения асимметрии в современном военном конфликте.

Ключевые слова: асимметрия вооружённой борьбы, соотношение сил, превосходство в силах, средства и способы вооружённой борьбы, новые технологии, новые физические принципы, способ боевых действий.

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Taking approach mass service theory for the improvement of model of decision-making on implementation tasks of fire defeat of opponent

Resume. The article is devoted taking approach theory of mass service for the improvement of decision-making model on implementation of tasks of fire defeat of opponent due to clarification of parameters of mass service theory, in particular account of the limited time of expectation of request in a turn, that will allow to take into account the dynamics of receipt of reconnaissance information, type of organizational association of management organs, and also will allow to give the proper recommendations in relation to the increase of level of probability of realization of information about the object of defeat during fire defeat of opponent.

Keywords: mass service theory, model of decision-making on implementation tasks, fire defeat of opponent.

Raising of problem. The results of multivariable analysis of the last armed conflicts testify to the tendency to diminishing of time on the cycle of exposure-defeat. One of the key stages of cycle of exposure-defeat there is the decision-making stage. To the basic failings during making a decision on implementation of tasks from the fire defeat of opponent belong is impossibility to take into account the dynamics of receipt of reconnaissance information and accordingly to distribute the work-load of facilities of fire influence in the process of fire defeat of opponent. Most essential, in opinion of author, a problem question is impossibility to define probability of realization of information about the object of defeat during the fire defeat of opponent.

In a theoretical plan in the questions of the decisions related to acceptance on implementation of tasks out of fire defeat of opponent an urgent requirement arose in the improved models of decision-making, due to clarification of parameters of the queuing system.

Thus, **the purpose of the article** is taking approach theory of mass service for the improvement of decision-making model on implementation of tasks from the fire defeat of opponent.

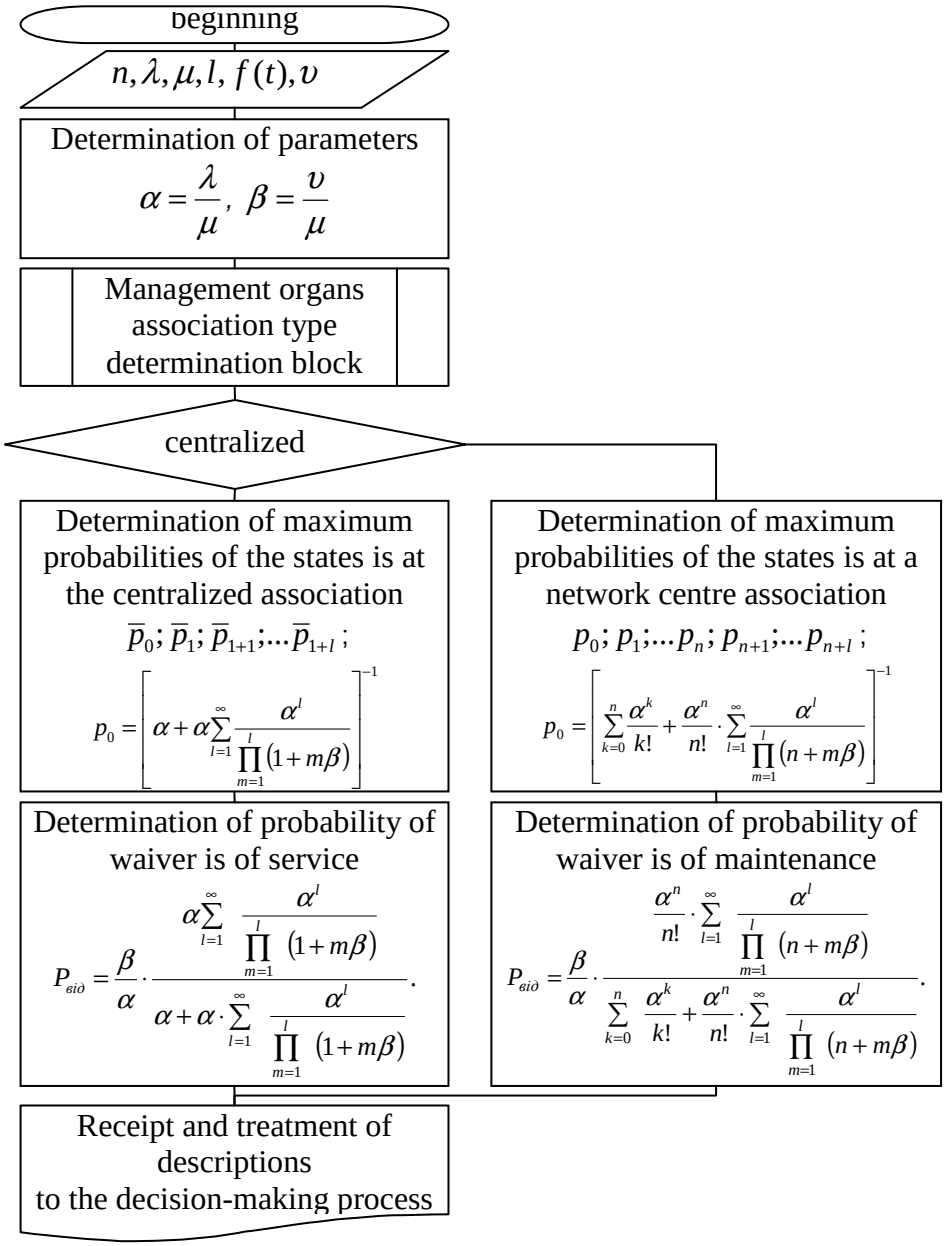
Exposition of basic material. For any queuing system a basic factor, which determines processes which flow in it, is a stream of requests which act on the entrance of the queuing system. For the terms of decision-making model on implementation of tasks from the fire defeat of opponent the stream of requests in a general view is reconnaissance information.

Usually objects for a defeat have set time actuality. That through set time an object can change position which accordingly will result in his undefeated during the job processing. It is thus suggested to choose the limited time of stay of request the parameter of model of the queuing system in a turn. It is also necessary to take into account circumstance that management organs

depending on an organizational structure will be definitely incorporated in the hierarchical system, it is accepted to consider centralized the basic types of association and network centre. In opinion of author, consists the basic difference of these associations in ability of stream of information to change the direction depending on terms. It is therefore suggested in a model to foresee the block of recognition (determination) as an association in the hierarchical structure of management organs.

Yes, in the case of network centre association, the queuing system can be presented as a complex of the one the channel queuing of incorporated systems in the unique structure with the even distributing of stream of requests depending on the level of hierarchy and from time of functioning.

In the case of the centralized association, it is possible to present the queuing system as a certain set of directions in which began to the flow requests distributed in accordance with possibilities each of stream.



Because of the accepted assumptions it is possible to assert about homogeneity of management organs, that in the case of the centralized association it is possible to apply approaches dynamics middle. Essence of approach consists in research of one object from all of aggregate on condition of their homogeneity and accordingly as a result of researches to draw a conclusion about the mean values of parameters of other objects.

Because of the noted theoretical expositions it is possible to present the general view of decision-making model as блок-схеми:

Conclusions. Thus, in the article the considered is improved decision-making model on implementation of tasks from the fire defeat of opponent with the use of approaches of theory of mass service and due to clarification of parameters of the queuing system, in particular account of the limited time of expectation of request in a turn, which will allow to take into account the dynamics of receipt of reconnaissance information, type of organizational association of management organs, and also will allow to give the proper recommendations in relation to the increase of level of probability of realization of information about the object of defeat during the fire defeat of opponent.

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Использование подходов теории массового обслуживания для усовершенствования модели принятия решения на выполнение задач огневого поражения противника

Резюме. Статья посвящена использованию подходов теории массового обслуживания для усовершенствования модели принятия решения на выполнение заданий огневого поражения противника (ОПП) за счет уточнения параметров системы массового обслуживания (СМО), в частности учет ограниченного времени ожидания заявки в очереди, что позволит учесть динамику получения разведывательных сведений, тип организационного объединения органов управления, а также обосновать рекомендации относительно повышения уровня вероятности реализации информации об объекте поражения.

Ключевые слова: теория массового обслуживания, модель принятия решения на выполнение задач, огневое поражение противника.

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Methodological and substantive aspects of system analysis in military research

Resume. The article describes the methodology of formation of directions i stages of systems analysis of complex problems in military studies, and the relationship of the system approach, system analysis, operations research and decision theory.

Keywords: systems approach, system analysis, program-target planning, system-analytical procedures.

Formulation of the problem. System analysis is one of the youngest methodological tools evolved in a relatively independent way in the middle of the last century. Today the theory and practice of systems analysis continues to develop. With respect to its content, as well as compliance with system approach, operations research and decision theory often express views that differ. Therefore, despite the significant number of works devoted to system analysis, synthesis and felt the need to clarify some of its provisions, and review of systems analysis as a full cycle of research with application in the framework of different methodological approaches and methods. This is very important in widespread use in the practice of force planning Ukraine program targeted approach, based on systematic and analytical procedures.

The aim of this paper. The article is the methodology of forming areas and phases of systems analysis of complex problems in military studies and interconnection systems approach, systems analysis, operations research and decision theory.

Presenting main material. The general theory of systems includes the most common system provisions relevant to the systems of any nature, and performs methodological functions in relation to the special system of theories. In this regard, general systems theory is also called the logical and methodological met theory.

Specific theories are many. These include: system logy, cybernetics, informatics, synergetic, system approach, system analysis, operations research, decision theory, systems engineering, etc. Among individual system of theories of special importance for military research with a systematic approach, systems analysis, operations research and decision theory.

The system approach is essential methodological area of research and social practice. It is based primarily on the provisions applied to study philosophy Objects of general systems theory, and a number of individual system theories. The original philosophical position which is based on a systematic approach is the principle of systematic reality. This principle is closely linked with important principles of dialectics as the

principle of universal connection and interaction principle qualitative difference and a single. However, a systematic approach is general scientific methodological concept of dialectics in the natural relation of subordination: it acts as a concretization of the principles of dialectics in relation to research, design and creation of objects systems.

In the most general terms the main feature of a systematic approach that distinguishes it as an independent methodological concept contained use fundamental methodological concept of the system as a single image of the abstract concrete objects investigated, of any nature, dedicating major determining party development trends, in knowledge representation and problem to be solved or task as a kind of conceptual system. However, it should be noted its high degree of generality. This is due to systemic reality. Due to these circumstances, every researcher or practitioner should consider in any areas of the provisions, requirements, principles and aspects of the system approach.

However, any approach to theory and practice remains approach. It defines the fundamental point of view of the researcher on the subject under consideration, the general guidelines knowledge of reality. However, to address specific scientific or practical problems under the researcher must use a systematic approach specific set of methodological tools to properly address these issues.

This set of methodological tools used to inform decisions on complex issues in various fields of human activity and society, known as system analysis. In the process of system analysis combined organic analysis and synthesis. This study describes the procedure for making, which is the decomposition of problems into components that are more accessible to study, use of methods to solve individual problems and combining some conclusions and decisions in general.

The basic principles of system analysis include:

focus (in the early stages should be defined and clearly articulated the main goal);

subordination of individual targets primary objective;

consideration of how objects investigated or solved problems;

expression and analysis of several options to address the problems and choices rational or efficient option;

complexity and balance research methods used; the leading role of the person who makes the decision (ODA), the main stages inform decisions on complex issues;

organization and methodological support of systematic research of analysts - a central figure in systematic and analytical procedures;

first-person principle – a system analyst in the preparation, study and participate in the decision must be able to communicate with ATS permanent or competent representatives;

systems analyst access to all information on the problem to be solved.

For researchers it is important to first know the sequence of work performed in the application of systems analysis procedures, that is, its main stages. However, among the experts

there is no consensus on this issue. Different sources submitted various options for system analysis, with or too general, or pursuant to solving specific problems, each of which has its own peculiarities system analysis. In this regard, the formation stages of system analysis is advisable to go through the system generalization, abstracting from the specific individual problems and highlighting the most basic, common to most types of problem situations stages and sequence of their execution.

Moreover, today it is impossible to put even the most important stages of systems analysis in a single version. The fact that at that time were two distribution lines in system analysis, a number of stages which differ from each other. The first area is related to the analysis of complex problem situations using models to determine the attractiveness of alternative performance without modeling operations systems. The second direction is based on the methods of the theory of efficiency, the use of which foresees the use of models of complex systems operations.

Thus, if a systematic approach is a set of ideas and principles of systems research, his prescription, and methodical implementation in substantiating decisions on complex systems is systems analysis.

In systems analysis study questions solutions to complex problems involved in operations research. Comparing the phases of systems analysis and operations research see that they have much in common, including the availability of informal creative stages. Note that in both versions considered stages of operations research is not a necessary step as the decision of ATS. In addition, operations research first two phases should coincide with the first two stages of system analysis. However, in terms of certainty of significant components of problematic situations these stages of research operations much simpler.

Signs separating operations research and systems analysis only due to the level of certainty associated with it and the complexity of the issues under consideration: Operations Research "working" with well-structured problems (described by mathematical means) and systems analysis - from poorly structured and unstructured problems (poorly or not at all described by mathematical means). This last allows only justify rational, effective or optimal for Edzhvurto-Pareto solutions. This principle, as often in the works is a question of making optimal solutions for poorly structured and unstructured problems (egg, highly complex and unstructured problems in the functioning of the Armed Forces).

Conclusions and recommendations for further research. The role and importance of systems analysis in the methodological arsenal of military research already out of the fact that the vast majority of the problems of the Armed Forces are poorly structured or unstructured. When using a system analysis to address these issues should highlight two points. In - the first in the Armed Forces is always a significant number of problems whose solution might direct the application of systems analysis. In - the second most difficult problems are solved with the use of program-target method which is based on systematic and analytical procedures. And here - such a big role

and importance of systems analysis for military research.

Given that several important systems analyses are informal it is necessary to continue the development of methodological approaches and recommendations that will improve the validity of its informal stages. With the characteristics of the main stages and variants of systems analysis can be seen all their complexity and the possibility of weak formalization. Therefore, during the ATS system analysis, system analysts and experts have to creatively and efficiently combine science and art, logic, heuristics and other methods of research.

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Методологический и содержательный аспекты системного анализа в военных исследованиях

Резюме. В статье рассмотрена методология формирования направлений и этапов системного анализа сложных проблем в военных исследованиях, а также взаимосвязи системного подхода, системного анализа, исследования операций и теории принятия решений.

Ключевые слова: системный подход, системный анализ, программно-целевое планирование, системно-аналитические процедуры.

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Problematic aspects of commander's decision making in command and control

Resume. The paper presents psychological aspects of commander's decision making. Successful command and control is impossible without understanding of the nature of complex, rapidly changing environment and without taking into account external and internal factors that influence its implementation. Commander's personal characteristics and qualities and macroenvironment elements that affect the quality of decision are examined.

Keywords: decision making, command and control activity, intuitive and rational decision, decision making stages.

The theory and methodology of knowledge of command and control activity of public officials, the officers of the Armed Forces of Ukraine are among them, is at a turning point at the present stage of development of Ukrainian society. We believe that the features of the mentioned process affecting the study on "human control" and act as external factors that determine it during long period.

The aim of this paper is to determine features and explanation of the military leader decision making algorithm.

The statement of basic material. Command and control activities are the primary activity of commanding officer of any level. Even insignificant faults may reduce combat readiness of military unit (troops) - material losses and health deterioration or even losses of military personnel.

Command and control decision depends on many factors including tasks of the unit, state and level of training, serviceability status of weapons and military (combat) equipment, manning and staff morale, etc. Moreover, command and control puts special requirements for commanding officer's personal qualities, his intellectual abilities and capacity for forecasting and analysis of the developing situation.

The base of the commanding officer activity is his management style, which is characterized by presence and usage of denominated system of tools, techniques and methods of decision making aimed to impact on his subordinates and coordinate their actions.

Decision making depends both on the person who makes this decision and his psychological characteristics and on the objective conditions in which this person is placed, and all factors that influence this process can be divided into two groups: *personal* (subjective) and *situational* factors (objective).

Personal factors are dictated by peculiarity of cognitive processes, states and qualities of the commanding officer

that influence the decision making process. Therefore, they can be presented as thee levels that correspond to traditional structure of personality.

Decision-making also depends on situational factors, or the specific circumstances in which management (command and control) decision is taken. This group includes factors of external and internal environment of the organization that affect development, assessment, selection and implementation of alternatives [1, c. 35].

Decision making depends on person who makes the decision, his characteristics and conditions in which he is placed, both subjective and objective. Therefore, this issue requires in-depth study of cogitative and decision making processes including development of study and impact technology [6].

The main task of the commanding officer (chief) is to choose effectively what, where, when and how to do something or in other words to determine strategy, tactics and techniques of personal, group or organizational activities.

It is worth to know that any decision will bring results, but their effective usage depends only on commander.

The effectiveness of organization is determined by effective command and control and effective command and control is determined by effective decision making. Thus, commanding officer success is hidden in secrets of the art of decision making.

Some decisions are easy to make, it looks like they happen by themselves. Such decisions are called *intuitive, irrational, emotionally conditioned*. While other decisions are enough difficult to make, it is necessary to think over approaching step by step to the correct option. Such decisions are called *logical, rational*. First category is characterized by its simplicity, speed, and relative reliability; they are based on the fact that the mentality of mature person can feel enough good internal mental and physical resources.

Rational decisions are based on a logical order. Their main feature is the possibility to understand them and to explain to others. Conceptual model of multilevel information digital processing in computer engineering reflects the difference between decision making mechanisms of mentioned decisions.

Intuitive decisions are made on the basis of comprehensive emotionally colored meanings and correspond to the off-the-shelf software products.

At the same time, associative and creative thinking is faster than the logical one, just as it is faster and easier to use mouse in comparison with symbol command writing.

Complexity factors of decision making on the modern and informational stage of society development are driven by geometrical growth of information volume, its ambiguity and semantic variety, and by acceleration of decision making.

As such, we have to change fundamentally “decision making system”.

One of the promising directions is to move to “visual” system thinking, to generation of non-procedural rules of decision making instead of fundamental

laws of command and control, it will allow flexible adjust to changing impacts, formulate and quickly change (correct) strategy and tactics.

Among all functions of command and control decision making is the main and fundamental activity of commanding officer. Decision making is carried out by choosing options from the set of alternatives. Thus, the main function of the commanding officer (management/control system) is to make effective (rational) choice.

Study conclusions and prospects for further development. Conducted analysis of command and control suggests that the improvement of management theory continues to be relevant today.

Command and control activity of the commanding officer is defined as a process of systematic effects on a single or group object in order to achieve intended results and it is performed in the form of algorithm: decision making, planning, and implementation of actions, command and control. The implementation of this command and control algorithm depends on the external and internal conditions of activity.

The central element of command and control activity of commanding officer is a decision making which is an original source for all elements of command and control algorithms by its definition. In a standard situation commanding officer uses ready activity programs, but during nonstandard situation he modifies them creatively taking into consideration situation status.

At the decision making stage mechanisms of cognitive activity are the main, intuitive and logical levels of thinking and rational logic are applied. Understanding of the nature of these processes allows correct perceiving and assessment of the situation, operating this knowledge for effective construction of the command and control process.

Taking into consideration the situation in eastern Ukraine, it is advisable to focus **further studies** on peculiarities of decision making process performed by military commander in critical situations.

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Проблемные вопросы принятия решения командиром в управленческой деятельности

Резюме. В статье рассматриваются психологические аспекты принятия решения командиром. Успех управления войсками невозможен без проникновения в сущность сложной, быстротечной обстановки, без учёта внешних и внутренних факторов, которые влияют на его реализацию. Рассмотрены личностные характеристики офицера-руководителя и элементы макроокружения, влияющие на качество решения.

Ключевые слова: принятие решения, управленческая деятельность, интуитивные и рациональные решения, этапы принятия решения.

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Substantiation tools development for a rational military command and control system structure based on the sample of the Land Forces Command of the Ukrainian Armed Forces

Resume. An approach to development of substantiation tools for a rational military command and control system structure of the Ukrainian Armed Forces was developed in the article. The experience of reformation of the Ukrainian Land Forces Command, guideline documents and opinions on a possible Ukrainian Armed Forces' command and control system structure for the nearest perspective, analysis of the existing methodological foundation, the aim structuring methods, clustering and hierarchy analyses and the matrix of pair equations were taken into the consideration.

Keywords: the Ukrainian Armed Forces Command, command and control system, military command and control bodies, functional and organizational structure, algorithm, matrix of pair equations.

General problem statement. According to the valid guideline documents, the main direction of management and control system of the Armed Forces (AF) of Ukraine till 2017 improvement has been defined on legislative level. It implies redistribution of tasks and functions among militarybodies, along with the4-level system establishment. For that purpose, the United Operational Staff (UOS) of the AF of Ukraine has been established. It is entrusted with the function of operational army groupings control in Ukrainian AF operations. The administrative control function will be with the AF commands, which will be responsible for the development of the AFs relevant branch. Part of their function will be requirements to military unit straining determination and the guideline documents following this requirements elaboration. Moreover, mentioned above responsibilities include management of commissioned and non-commissioned officers' training, and the troops(forces) of the AF's monitoring.

At the same time, the organizational and functional structure of the commands should meet the functions and tasks relied on them. Their amount should meet the requirements of the guideline documents and legal standards. Regarding the anti-terrorist operation (ATO)experience, the military managements well as combat operations control system needs improvement. The structure of headquarters makes it impossibleto conduct combat troops control and the territorial defense of Ukraine administration. That's why, the headquarters has to be rebuilt, with its structure to be grounded on a scientific approach including essential calculations and modeling. While the choice of the rational framework of the Land Forces Command (LFC) should rely on distribution of functions and tasks among administrative bodies and reveal their efficiency indicators. However, the existing practices of improving the structure of the AF's

headquarters are based on subjective decisions and on a national and foreign experience gained. Hence thither methodological apparatus for the rational administrative framework of the command and control bodies improvement is an important scientific task. In particular, the most important problem is a Command of the Ukrainian AF, which would increase the level of objective decisions on their structure.

The investigation and up-to-date scientific articles analysis proved that modern systematic methods and approaches are incomplete and focus on the headquarters' administrative structure grounding. It makes it hard to determine the levelof their efficiency. Thus, methodological approach to rational administration framework in the AF of Ukraine – 2011 (by V.M. Vlasyuk) comprises an unresolved issue of comparative evaluation of alternative headquarters' administrative framework to satisfy promoted criteria. The methodical approach ignores functional characteristics of headquarters. It's mainly based on the analysis of the data flows. Behind a methodological approach under investigation there is a method of operational personnel substantiation,which is relevant to all military staff. Current method is based on the legal indicators of information processing. It can be also partially used to confirm the ways of framework management, but the order of rational choice has not been defined yet.

The aim of the article is toimprove tools and rational management of the LFC of the Ukrainian AF. The aim can be reached through complex application of aims structuring method, cluster analysis and analytic hierarchy process.

In accordance with the theory of management building system, headquarters' management should be formed according to its functional application. It should guarantee the maximal efficiency of the operational and administrative tasks and, of course, tasks related to the army supply.

According to the Operational work Act of the Operational Command of the AF of Ukraine the headquarters' organizational structure is defined through the following requirements:

Headquarters' structure and amount should correspond to the standards and volume of tasks management and personnel of subordinate units structure;

Functional homogeneity: it implies structural elements that accomplish interrelated management tasks;

Identical functions in headquarters' structural elements omission;

Correspondence and interoperability of organizational and command regular frameworkin peace- and wartime.

Regarding the Command of the LF of the Ukrainian AF Provisions, LFC is assigned to perform administrative management of subordinate troops(forces). It irresponsible for planning and holding combat training, executing control of territorial defense. Planning and carrying out the mobilization, management of recruiting human resources and the national Ukrainian technical supply are also under their consideration, as well as the renewal of military units fighting

capacity and development of the LF of the Ukrainian AF.

Having considered the tasks assigned to the Command of the Ukrainian AF, we came to the conclusion that the first and the basic requirement tor headquarters on operational and strategic level has not been fully implemented yet.

The problem of justification of rational structure, personnel and specifying requirements to military command and control system on operational and strategic level of the Ukrainian AF is extremely important. Its topicality is enhanced by the terms of reforming and development, taking into account changes in forms and methods of the AFs application. Moreover, we should take to consideration national and foreign experience of holding, functioning and providing military command and control system within the past decades.

Conclusions and guidelines to further research:

The methodological approach under consideration deals with accomplishment of consecutive interrelated steps to justify the rational management structure of headquarters of the Ukrainian AF. It allows bringing the existing theoretical solutions on the conducted research to logical sequence.

The methodical approach application will enable to estimate the value of headquarters' administrative framework in the AF of Ukraine, determine correspondence to appropriate tasks and regulate the personnel, eliminate excessive management and increase the amount of immediate executors.

It's reasonable to apply the methodical approach to administrative policy to improve management and control system in the Armed Forces of Ukraine.

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Усовершенствование инструментария обоснования рациональной структуры органов войскового управления на примере Командования Сухопутных войск Вооружённых Сил Украины

Резюме. В статье предлагается подход для усовершенствования инструментария обоснования рациональной структуры органов войскового управления ВС Украины с учетом опыта реформирования Командования Сухопутных войск Вооружённых Сил Украины, руководящих документов и взглядов на перспективную структуру системы управления ВС Украины, анализа существующей методической базы, используя методы структуризации целей и кластерного анализа.

Ключевые слова: Командование Сухопутных войск Вооружённых Сил Украины, система управления, органы войскового управления, функциональная и организационная структура, алгоритм, матрица парных уравнений.

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Analysis of ways improve the warehouse logistics of the military department.

Resume. The article deals with the issue of warehousing military. The analysis of ways to improve the functioning of the storage system forces.

Keywords: military logistics, warehouse logistics, reduced annual costs, stocks, automated warehouse management system.

Formulation of the problem. In the modern interpretation under military logistics system means the uninterrupted supply army military equipment, ammunition, clothing, food, medicines, fuel and lubricants and related management information, financial and material flows.

Military logistics supply are among the largest and accumulate in itself all the typical problems: hierarchical, territorial branching, a large number of nomenclature positions, the high cost of spare parts and so on.

The nature of the activities in the military logistics are the following areas: procurement logistics; warehouse logistics; sales logistics; transport logistics;

Thus, logistics - interdisciplinary scientific field, directly related to the search for new opportunities to improve the efficiency of material flow.

This article discusses ways to improve warehouse logistics in the military.

Warehouse logistics - logistics section dedicated to the management of deployment, storage, replenishment and delivery of material resources to consumers.

Warehouse logistics efficiency depends on the use of logistics (storage capacity) and logistics management process to ensure the right intensity of traffic with the required output parameters at minimal cost to its implementation.

Now the Armed Forces of Ukraine a large number of units has warehouse operations. Some of them (30%) such activities are basic, while others have the structure corresponding logistic units (warehouses).

Optimization of warehouse logistics across the military establishment, of course, would help to save the budget.

Analysis of recent research and publications. In the works of J. Johnson, Donald F., D. Vordou, Paul R., Anikin BA the basic principles and functions of warehouse logistics, methodological apparatus, calculation of logistics costs.

System storage is seen as a link supply chain, providing the necessary intensity of material flow from the primary sources of raw materials to the end consumer with minimum costs. This

warehouse operations is part of pricing goods. In the military goods are not produced as warehouse logistics has its own specifics.

In scientific publications Savinkov, Dybskoyi V. provides performance warehouse logistics, grouped according to certain criteria. Some of them are interdependent summary indicators by groups not formed and moreover not taken into account the specifics of the military establishment in respect of the storage facilities.

The aim of the article is an analysis of known approaches regarding improvement of warehouse logistics and their adaptation to the War Department to justify certain recommendations.

Presenting main material. To justify recommendations for the improvement of warehouse logistics developed structural and logical scheme, which is shown in Figure 1.

The strategic objectives of warehouse logistics of the Armed Forces of Ukraine (Block 1) are:

accumulation of inventories necessary resources according to plan deliveries (Block 10);

providing material resources of all attached consumers;

ensure the safety of material resources (MR) when stored in compliance with relevant regulations;

implementation of efficient cargo handling and internal ware-house works and operations associated with orders and manning vehicles parties at minimum cost;

efficient use of warehouse space and volumes to minimize movement within MRI composition;

the timely formation of accounting documents on admission (shipment) MR;

MR inventory of existing supplies to plan for next year.

According to the Plan MR supply calculates the predicted value of the material flow through the logistics system (Block 2) and forecast value stocks required by the system as a whole and for individual components (Block 3). Further, given the transport network service area (Block 10), formed the scheme of material flow within the distribution system -logistic chain (Block 4). Based on the analysis of the current state of warehouse logistics efficiency of Ukraine's Armed Forces (Block 11) assesses the logistics costs for each chain (Block 5).

Successor steps to study recommendations is to develop options for improving warehouse logistics (Block 6) assessment of logistics costs for each option (Block 7) and choose to implement one of the options developed (Block 8).

In [1, 2] to evaluate the efficiency of warehouse logistics (Block 11) proposed to use partial indicators that can be reduced to four groups:

I - indicators characterizing the intensity of the composition;

II - indicators characterizing the efficiency of warehouse space;

III - indicators characterizing the level of preservation of the goods and the financial performance of the composition;

IV - quality of storage service and customer satisfaction.

The mentioned four groups of indicators relating to the performance of warehouse logistics and can be used in

the formation of flexible analytical samples to support decision-making leadership of the Armed Forces of Ukraine to improve the quality of functioning warehouse component of military logistics.

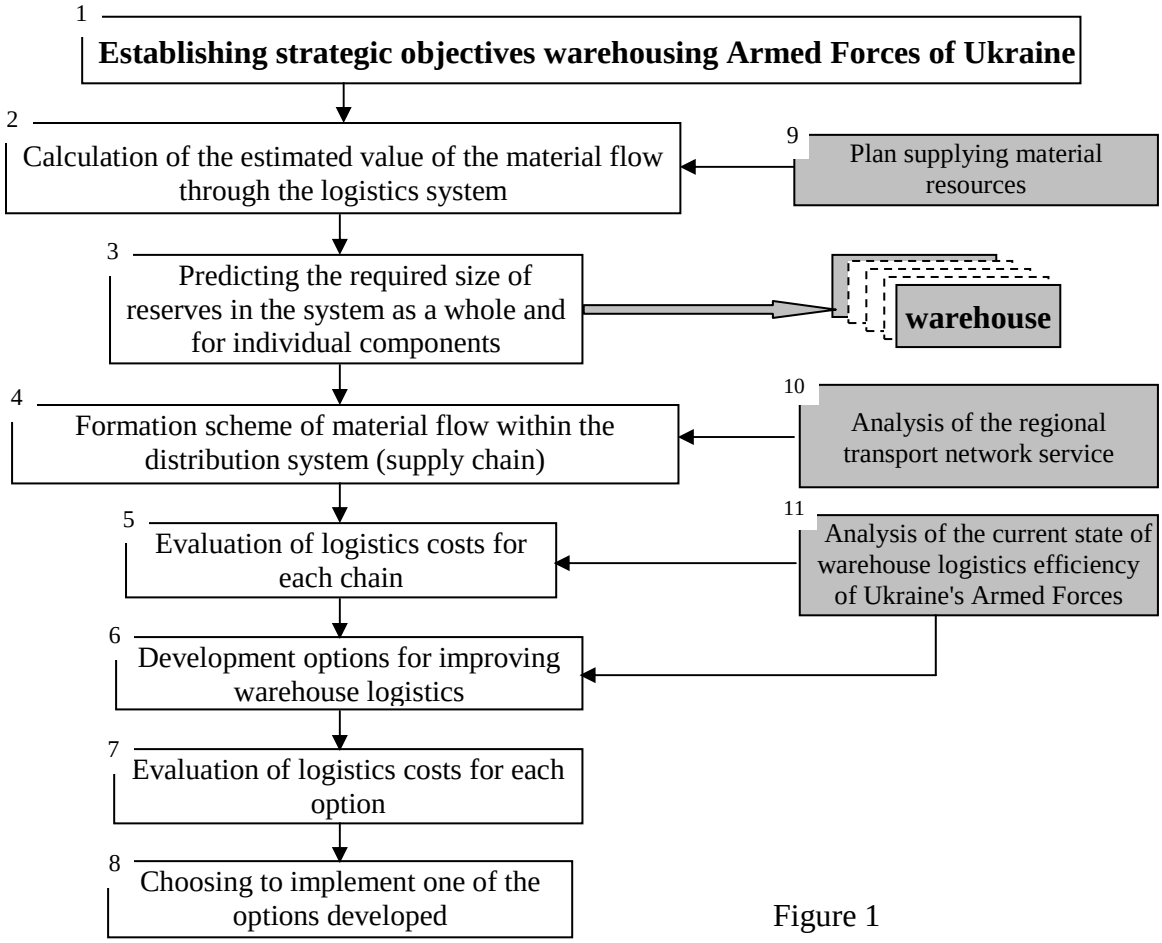

Figure 1

In carrying out projects to streamline warehouse logistics is advisable to consider the following key areas of improvement of formulations (Block 6) [1]:

warehouse optimization deployment to meet the requirements for capacity formulations - allows you to reduce transportation costs;

optimizing warehouse processes to improve productivity and quality of work;

achieving high utilization rates of warehouse space and volume through the use of sustainable technology solutions mechanization of cargo handling and transport operations;

developing standards on the specified types of work to control the quantity and quality of work, allowing effectively address issues of motivation;

placement optimization of material resources (MR) in stock, allowing to minimize their movement inside the warehouse (saving labor and technical resources);

reduce staffing requirements by applying process automation MR accounting and inventory.

General logistics costs (calculated in Block 7) called the total costs associated with complex functional logistics management and administration in the logistics system.For ease of analysis and study

proposals presented annual costs of warehousing advisable for each variant represented [2]:

$$C_m^{gen} = \sum_{i=1}^{5} C_i + K/T ,$$

C_1 - annual operating costs;

C_2 - annual travel expenses;

C_3 - annual cost of managing storage systems;

C_4 - annual costs of maintaining the stocks;

C_5 - expenses related to the justification of improving the logistics system and taken into account when deciding on its improvement;

K - full capital investments in construction and equipment storage, given time by a factor to discount rate;

T - payback option.

The criterion of selection options is reduced at least cost. Also taken into account:

- plan supplying material resources;
- service transport network in the region;
- the current state warehouses.

The analysis of logistics costs in various industries of developed countries shows that the largest share of them are the costs of:

inventory management (20-40%);

transport costs (15-35%);

the cost of administrative and management functions (9-14%).

From the above it can be concluded that the structuring of output data for operations in blocks 6.7 requires process automation accounting reporting of logistics data.

Recently, the main focus of warehousing is the use of information technology.

Improving the information technology, warehouse automation process increases management flexibility that allows warehouse operators to quickly work out the accounting, financial and other documents to obtain data to evaluate the current state of storage facilities.

When selecting automation system should be considered as strategic needs of agencies, and the immediate tasks specific formulations.

Today the range of solutions for automating warehouse activities is quite wide: from recording programs to the storage modules ERP-class systems and solutions WMS.

Systems WMS and ERP - fundamentally different strategies: WMS-level control of the system, ERP system of basic and detailed planning.

WMS-system (whether functional) contains the following modules: acceptance; Logic Storage (monitoring of key performance indicators); shipment (transit and scheduled); complete orders; final quality control in the receiving / shipping; HR.

ERP - a decision on management of all key business processes of the organization, including warehouse management, optimization and integration on the basis of a single information system. The main role of ERP-solutions - combining the key business processes of a single information environment.

Warehouse module ERP-system allows for transactions occurring in the warehouse, doing so only accounting functions. The information about the movement of goods entered into the system manually.

Class WMS system in real-time monitors actual reception of the goods and based on the accepted rules makes placing the goods - realizes the management function.

That is why we compare these two systems wrong because they complement each other.

Where military warehouse logistics is not the center costs, and maintenance costs of inventory passive translated into wholesale suppliers enough and simplified processes that will support module ERP. Using the warehouse module as part of ERP can be profitable institutions with small volumes of transactions, limited range, which allow for a significant percentage of manual operations.

Just compare the cost and payback period of the class ERP and WMS correctly. Full-scale implementation of ERP is much more expensive. However, the range of tasks that ensure these decisions are not limited to the warehouse complex. But on the level of automation of storage processes and associated benefits in comparison with the built-in ERP benefits from the launch of a specialized WMS much more. Work WMS warehouse logistics system of military departments based on the technology of bar coding and automatic identification principle address storage and remote management of staff.

In order to automate procedures for reception, accommodation, storage, handling and shipping of products of the territory is divided into zones by type of manufacturing operations.

The results of the composition or condition of the system collects data that can be transferred into the corporate system of institutions that allows you generate reports that can be output as a print, and transmitted to the corporate system institutions.

Due to the principle of address storage increased to 99.9% accurate data on the number and placement of products in stock, provides full control over the movement of goods.

By keeping turnover and configuration selection rules, taking into account the frequency of calls to a product of increased productivity. Accelerating and increasing turnover. Determining the most correct strategy stowage, sealing procedures and the use of cells with different height WMS optimizes the use of storage space (capacity increasing from 5 to 25%).

WMS system allows to reduce the performance of all warehouse operations, an average of 20-30% increase productivity, stop contingencies. This is due to the implementation of control through bar coding. Number of situations where staff can not find the products in stock is reduced to almost zero. Warehouse Management System makes it possible to reduce operating costs through efficient use of trucks, optimizing the use of equipment. In addition, lower transportation costs due to fuel saving, reduced maintenance costs and increased lifetime of trucks.

Conclusions. Maintaining effective operation of storage facilities can be achieved by selecting optimal storage system, using the latest information technology in relation to accounting and governance dynamics of material resources and rational organization and management of logistics processes in the warehouse.

The selection and implementation of warehouse management system - a long and crucial process requiring administrative intervention of senior management agency.

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Анализ путей улучшения складської логистики военного ведомства

Резюме. В статье рассмотрены вопросы организации складского хозяйства военного ведомства. Проведен анализ путей улучшения функционирования складской системы вооружённых сил.

Ключевые слова: военная логистика**,** складская логистика, приведенные годовые затраты, запасы материальных средств, автоматизированная система управления складом.

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Risks assessment methodology applicable during the analysis of State resources capabilities to meet the needs of the Armed Forces of Ukraine

Resume. An amended version of the risks assessment methodology applicable during the analysis of State resources capabilities to meet the needs of the Armed Forces (AF) of Ukraine is offered. As opposed to existing methodologies, this one allows assessing the risks driven by scares resources during strategic and/or other types of planning and helps calculation of the funds needed for upcoming years' budget with accounting for the rate of inflation and using a minimum number of basic data.

Key words: methodology, risks assessment, State resources capabilities.

Problem definition. According to several recent Defence reviews, Strategic Defence bulletins, State development programs and plans, the functioning of the Ministry of Defence (MoD) of Ukraine and the General Staff (GS) of the AF of Ukraine proves that no AF of Ukraine State development program has been fully implemented due to lack of funds available, moreover, the last one was even suspended that eventually led to lack of the AF of Ukraine combat readiness at the beginning of the Anti-terrorism operation in Donetsk and Lugansk regions.

More than 70% of total MoD expenditures was spent for the AF of Ukraine subsistence while the MoD budget equaled 1,3-0,9% of the state's GDP. Thus the leading countries for the maintenance of their armed forces normally spend from 45 to 35% of total MoD expenditures which equals at least 2% of the state's GDP.

The aim of the article is to deliver results of the scientific research on the acceptability of the use of the amended version of the risks assessment methodology applicable during the analysis of State resources capabilities to meet the needs of the AF of Ukraine.

Main body of the article. To address the problematic issue of resource risks assessment when planning for the necessary expenditures to cover the needs of the AF of Ukraine, their focused distribution and resource risks management in the strategic and other planning the system covering risk assessment key indicators to analyze the state resource capacity to meet the needs of the AF of Ukraine was created.

The results obtained offer weightings of the budget portions available for the AF of Ukraine from the state resources and the criteria to measure risk acceptability. This therefore creates the conditions (rules) allowing rational designation of the AF of Ukraine funds.

For example, for a certain value of "negligible risk" criterion used during strategic or other planning, considering current military conflict in the country the following expenditure rates are suggested for:

- maintenance of the AF of Ukraine – no more than 0,2 (20%);

- training of the AF of Ukraine – at least 0,3 (30%);

- development of weapon systems and infrastructure (investment) – at least 0,493 (49,3%);

- military property disposal – less than 0,007 (0,7%).

Thus a scientific novelty in conducting analysis and rational distribution of military expenditures under state resources constraints is that the expenditures weight coefficients with consideration of the acceptable risks have been found.

The results of risk assessment in the analysis of resource capabilities of the state to meet the needs of the AF of Ukraine are put in Microsoft Excel table (Table), designed with accounting for phases, co-relations and minimum basic data marked by white cells. Data in other cells is calculated automatically.Table

The results of risk assessment in the analysis of resource capabilities of the state

Indexes/ risks	A volume of charges is on necessities MoD						**2015 рік –** 40 231,10		All	A coefficient of volume of charges is on necessities MoD
	Maintenance		Preparation		development of weapon systems and infrastructure (investment)		Military property disposal			
	Sum	Coefficient of volume of charges	Sum	Coefficient of volume of charges	Sum	Coefficient of volume of charges	Sum	Coefficient of volume of charges		
Insignificant risk	8 046,220	*0,200*	12 069,330	*0,300*	19 833,932	*0,493*	281,618	*0,007*	40 231,100	*1,000*
Substantial risk	14 080,885	*0,350*	8 046,220	*0,200*	17 822,377	*0,443*	281,618	*0,007*	40 231,100	*1,000*
Considerable risk	20 115,550	*0,500*	4 023,110	*0,100*	15 810,822	*0,393*	281,618	*0,007*	40 231,100	*1,000*
Extreme risk	30 173,325	*0,750*	2 011,555	*0,050*	7 764,602	*0,193*	281,618	*0,007*	40 231,100	*1,000*
It is ratified by a budget	**28 667,300**	***0,713***	**1 867,900**	***0,046***	**9 624,300**	***0,239***	**71,600**	***0,002***	**40 231,100**	*1,000*
Recommended sum	28 667,300	*0,200*	43 000,950	*0,300*	71 413,151	*0,498*	255,099	*0,002*	**143 336,500**	*1,000*
Insufficiency of financing	0,000		**41 133,050**		**61 788,851**		183,499		**103 105,400**	
Coefficient of scarce cost	0,000		0,957		0,865		0,719		***0,957***	
Determination of payment of the worked out recommendations									**256,3%**	
Planning of next budget (world practice)	**28 667,300**	***0,400***	**14 333,650**	***0,200***	**28 523,964**	***0,398***	**143,337**	***0,002***	**71 668,250**	*1,000*
Taking into account the rate of inflation (%)								***10,0***	**78 835,075**	

The results have been found for risk assessment during analysis of resource capabilities of the state to meet the needs of the AF of Ukraine for 2015 (Table) in accordance with the allocation of expenditures for the MoD of Ukraine (Annex 3 to the Law of Ukraine "On State Budget of Ukraine for 2015") taking into account the special Stock. The results also demonstrate "Extreme risk" and the presence of acute resource problems for the AF of Ukraine (maximum deficit ratio for a year's projected cost – 0,957).

To minimize resource risks using Table, one can automatically reallocate expenditures, taking into account the accepted figures and world practices, identify funds deficit and calculate the efficiency gains in the strategic or other planning taking into account the proposed recommendations, corresponding to "negligible risk" criteria to achieve defined operational

(military) capacities (capabilities) of troops (forces).

In addition, using the data in Table one can estimate, without unnecessary calculations and statistics, the resources risks under expenditures planned, calculate necessary expenditures for certain values of acceptable risks criteria under the condition of scarce state resources.

The results found not only contribute to more effective strategic or other types of planning, but also will enable the relevant higher military command to make informed decisions, identify alternatives and adjust risk strategy.

Based on the methodology suggested one can either develop a relevant software or use Table, which would allow relevant officials at user level to make, evaluate and adjust the output data.

Conclusions. Thus, the scientific innovation in assessing the level of resource risks when analyzing state resource capabilities to meet the needs of the AF of Ukraine is that the method of risk assessment has been improved as follows:

1. Unlike existing means it enables resources risks estimation during strategic or other types of planning taking into account current military conflict in the country and international experience. It also helps required expenditures calculation during the next budget planning using a minimum amount of input data;

2. It allows making rational, sufficiently complete and accurate for practical purposes decisions when allocating the AF of Ukraine expenditures that are necessary and focused for next budget planning and takes into account acceptable risk criteria.

3. It can be used at top levels of military command (MOD Ukraine and the GS of the AF of Ukraine) for planning and evaluating the effectiveness of strategic or other types of planning of the AF development.

The introduction of the improved methodology into practice contributes to the creation of modern, combat-ready; professionally trained AF of Ukraine, which in its structure, strength and equipment will meet the requirements, including compliance with NATO standards. This is due to the fact that the results of the AF of Ukraine reforms and development depend on the level of financial and material support.

The prospect of further research on the basis of these and other results can be further improvement of the risks assessment method applicable during AF of Ukraine development planning at strategic and/or other levels. The research could also be aimed at improving the AF of Ukraine integrated risk assessment model during strategic and/or other types of planning.

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Методика оценки рисков при анализе ресурсных возможностей государства по удовлетворению потребностей Вооружённых Сил Украины

Резюме. Предложена усовершенствованная методика оценки рисков при анализе ресурсных возможностей государства по удовлетворению потребностей Вооружённых Сил Украины. В отличие от существующих эта методика позволяет оценить ресурсные риски при стратегическом или других видах планирования и рассчитать необходимые объёмы расходов в ходе планирования бюджета с учётом уровня инфляции, используя минимальное количество исходных данных.

Ключевые слова: методика оценки рисков, ресурсные возможности государства.

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Proposals to improve the information systems support the process in the daily activities of the Ukrainian Armed Forces structures

Resume. The article analyzes the problems of implementing informatization projects in the activities of the Armed Forces of Ukraine and on its basis practical proposals to improve operational efficiency through improved information systems support the process.

Keywords: informatization project, operational efficiency, support of information systems.

Problem. Currently, the Armed Forces of Ukraine has successfully implemented various projects of information aimed at increasing efficiency and improving quality management processes and daily operational activity of the troops.

But in practice (statistics) revealed that almost half of the projects the actual user of the system is trying to adapt according to their needs that can and give him information system to what he needs to do. Sooner or later, users feel that the implementation of information systems has not given such an economic benefit, which was planned initially. And even if everyone thinks that the whole project is completed successfully, users remain alone with the problems that arise.

Implementation of any software product is to substantially solve operational tasks, not only currently but also bring further effect which is desirable display indicator. This indicator can be an operating efficiency of introducing information technology.

Accordingly, the main **purpose of the article** is to provide practical suggestions for improving operational efficiency through process improvement support information systems in everyday activities of the Armed Forces Ukraine.

The main material. By implementing information system can continue to increase the efficiency of its use. And there could be mutually beneficial cooperation in the event that the customer (customer information system) and information and telecommunication structure (developer) will continue to work together in the future (even after the adoption of the system in constant operation).

This cooperation will be aimed at finding ways to use this information system and additions to the functionality that has already been successfully implemented and used.

And one of the following - this operating efficiency, where information technology can be a source of additional data. As a rule, they do not care, buying or developing the information system.

Given the challenges and the state of the Armed Forces of Ukraine at the moment, limited funding areas of information technology the most possible way to improve the efficiency will be a slight constant improvement already adopted for the (commission) systems.

To date, information and telecommunication structures it is possible to deliver data at a greater level of detail than before. Due to this increased degree of freedom in operating efficiency.

Conclusion. For maximum effect after the implementation of the information system must fulfil certain conditions:

- to improve operational efficiency requires cooperation between the information and telecommunication structures (support unit) of the owner (customer) business process (system);
- operational efficiency does not mean large investments in information systems - a more creative use of existing information, to find a "narrow" place to investigate and monitor them. These support units are suppliers of important information that is available for use;
- improving the information system - a process of iterative. Do not try to do much at once, it is necessary to carry out its cycles. And we must focus attention zone - in this process should be activated management representative;
- data visualization helps in their perception, but keep in mind that the data should be as simple and clear. Visualization significant impact on the effective and efficient decision making.

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Предложения по совершенствованию процесса сопровождения информационных систем в повседневной деятельности структур Вооружённых Сил Украины

Резюме. В статье проводится анализ проблем реализации проектов информатизации в деятельности ВС Украины и на его основе разработаны практические предложения по повышению операционной эффективности за счет совершенствования процесса сопровождения информационных систем.

Ключевые слова: проект информатизации, операционная эффективность, сопровождение информационных систем.

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Scenarios of possible development of regional military-political situation in the context of conflict on east of Ukraine

Resume. In article are presented a possible scenarios of development of military-political situation in region around of Ukraine in 2016-2017 in a context of the conflict in the east of Ukraine. Scenarios is formed on the basis of the analysis of military-political events in 2014-2015.

Keywords: military-political situation, scenario, conflict, illegal armed formations, information messages.

The problem. At present day the main problem of military policy is formation and analysis of possible scenarios of development of military-political situation in a context of the conflict in the east of Ukraine. Therefore the understanding of positions of leading military-political forces, tendencies of their change and possible combinations of actions is actual.

The analysis of known researches and publications. Modern domestic researches practically do not give attention to analysing of current military-political events with use of the information from the open information sources and to forming on this basis of development scenarios of military-political situation. The project of the Strategic defensive bulletin considered similar scenarios, however they have been concentrated to using variants of armed forces (AF) of Ukraine.

The purpose of article - a creating of possible actions scenarios in the conflict in the east of Ukraine of military-political forces which will be forming military-political situation in region of Ukraine during 2016-2017.**The main material of article.** The methodical approach. During 2014-2015 authors traced more than forty open information sources. Authors sorted information messages from these sources concerning problems of military-political relations and filtered their for reliability increase with help of the cross analysis, of search and analysis of primary sources, of taking into account of an emotional component of statements of political leaders and so on. The substantial analysis of military-political events is being contained in [1-3]. As a result of the complex analysis of more than five thousand information messages authors have revealed positions of the main military-political forces. Also authors have revealed tendencies of their change, cross relations, areas of admissible compromises, resoluteness for use of military force, other elements of military-political situation. On the basis of it, and also with taking into account of main geopolitical tendencies of the end 2014, authors have generated

scenarios of possible development of military-political situation around of Ukraine which later have made more exact as a result of the events analysis in 2015.

Conditions and assumptions concerning formation of scenarios. In the report [2] authors have created development scenarios of military-political situation around of Ukraine in 2015. A basis of these scenarios is the analysis of the base interests, the current purposes, intentions and actions of military-political forces, and also a principle of rationality of their possible actions from the view-point of a ratio of effects and losses. The scenarios also considered a state and dynamics of domestic social and economic processes in Ukraine.

The analysis of information messages has revealed some distinctive features of current military-political situation which have influenced accents arrangement:

in 2015 domestic socio-political situation in Ukraine has considerably worsened, centrifugal forces have been considerably amplified;

during 2015 the illegal armed formations (IAF) have accumulated potential for a fulfilling of large-scale military operations or a changing of constitutional order by illegal way, the international terrorist groupings (which are being supplanted from the Near East) have increased activity;

owing to activity increasing of the Russian Federation, the USA and Turkey in Syria military-political situation in Ukraine began directly to depend on military-political situation on the Near East. This dependence can will be evinced in possibility of actions synchronization of the states in both conflicts or in search of ways of their joint decision.

The scenario 1 “Local war between Ukraine and the Russian Federation”: large-scale attack of Russian AF on Ukraine and with use of all weapon kinds with the purpose of defeat of Ukrainian AF, of compulsion to federalism, demilitarization, compulsions to the neutral status, liquidation of nationalist parties, compulsions of Ukraine to acceptance of the Eurasian geopolitical vector.

The scenario 2 “Stimulation of the internal military conflict in Ukraine”: organizational and financial support IAF from the Russian Federation, delivery of armament and military technics for IAF, their fiery support without direct collisions with Ukrainian AF, a sending the armed groups of regular or irregular forces, military manoeuvres of the Russian Federation near to the Ukrainian border, economic sanctions, an impeding for trade, a creating of negative international image of Ukraine.

The scenario 3 “Stimulation of coup d’états in Ukraine”: organizational, financial support of domestic proRussian political forces, deliveries restrictions of the critical goods (the electric power, coal, natural gas) and other actions which are directed on deterioration of a socially-economic life condition of the population and stimulation of domestic socio-political instability.

The scenario 4 "A dividing of Ukraine with the consent of the USA and EU": actions according to the scenario "Stimulation of the internal military conflict in Ukraine" and also other actions with the purpose of

capture of southeast areas of Ukraine, of compulsion to negotiations or compulsion of the USA and EU to refusal from the support of territorial integrity of Ukraine in exchange for influence in the western areas of Ukraine.

The scenario 5 "The coup d'état owing to escalation of domestic socio-political contradictions". At present day is being increased the possibility of scenario which directly is not connected with actions of the Russian Federation, but is connected with actions of domestic political forces and the domestic armed formations. Conditions for internal coup d'état which were formed on the end of the last year, in 2015 have continued to amplify. Today internal not state subjects (first of all the armed formations) have got significant military potential. These subjects have doubtful legitimacy and the state badly supervises them. At support of political forces these subjects can carry out coup d'état and change constitutional order in Ukraine.

The scenario 6 "Decomposition of Ukraine by means of strengthening of centrifugal tendencies": refusal of regions from subjection of the central authority and declaration of autonomous or independent republics.

Conclusion. As shows the analysis of scenarios from the view-point of effects and losses, the most possible scenario of the Russian Federation actions is "Stimulation of the internal military conflict in Ukraine". However negative influence of internal political, economic, social processes can considerably increase an possibility of scenarios which are connected with actions of the domestic forces, in particular of the armed formations: "The coup d'état owing to escalation of domestic socio-political contradictions" and "Decomposition of Ukraine by means of strengthening of centrifugal tendencies". These scenarios can be combined with the scenario "A dividing of Ukraine with the consent of the USA and EU". The scenario "Local war between Ukraine and the Russian Federation" has the least possibility, but it cannot be excluded completely.

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Сценарии возможного развития региональной военно-политической обстановки в контексте конфликта на востоке Украины

Резюме. В статье представлены возможные сценарии развития военно-политической обстановки в регионе вокруг Украины в 2016-2017 годах в контексте путей решения конфликта на востоке Украины. Сценарии сформированы на основе анализа военно-политических событий в 2014-2015 годах.

Ключевые слова: военно-политическая обстановка, сценарии, конфликт, не предусмотренные законом вооружённые формирования, информационные сообщения.

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The evaluation of the psychological resilience of the personnel in the administration of rapid reaction military unit's

Resume. In the article was analyzed the common experience of the psychological support of military unit's of armed forces of the USA, Canada and Germany. As well, were shown the contents of automated techniques of psychological level definition techniques of armed forces of the USA and Canada, Germany and Russian Federation in the battle conditions. In addition, the methodic of the psychological resilience evaluation was opened. As first and foremost, the usage of the mentioned methodics will optimize the definition process of the military unit's fighting possibilities. One should note here that in the article were offered some ways of implementing mentioned methodics in the activity of the military control system, as well, as in the Ukrainian military unit's control system with the future perspectives of NATO standarts achievement.

Keywords: rapid reaction airmobile troops, methodic, psychological resilience.

Statement of the problem. In General, the progress of military technology a military man communicates with all the more modern types of weapons, performs increasingly complex and dangerous tasks, which increases the influence of stress factors of service and combat conditions and increases the need for adaptation of personnel to the fighting of the future. Modern psychogenic risks not only harm the health of combatants, reduce their fighting capacity, but often require considerable time to restore it.

Analysis of recent researches and publications. A survey of existing methods for determining the combat capabilities of troops (forces) showed the neglect of the influence of subsystem moral and psychological support on the overall combat capabilities that may make it impossible for qualitative performance of combat missions. This fact and the current implementation in the management system of the Ukrainian armed forces of NATO standards requires careful study of the accumulated experience of the leading countries of the world.

Analysis of studies have shown that the inclusion of psychological resilience of troops in combat conditions is possible using the techniques of control of the moral psychological state (IPU), the psychological stability of personnel and psychogenic predict combat losses [3-7]. But, in spite of the exhaustive theoretical and practical elaboration of certain methods there is some inconsistency and, in some cases – a contradiction, in relationship to key concepts.

Given the above, the **purpose of the article** is to develop approaches for consideration by the optimal model based on the level of psychological stability of personnel in the management of divisions of troops (forces) of armed forces of Ukraine with the experience of leading countries of the world.

Presentation of the basic material. It is established that at low

level of psychological stability of personnel, the execution time of the problem of fire is increased by 35 %, and the number of misses from 40 to 50 %, troops may lose its fighting capacity is already at 10-20% loss, at the same time, with a high level of psychological stability of personnel of military units and divisions – only if more than 50% [7, 8].

According to the statistics of various wars and armies, mental losses in the theatre of war is 6.6 to 12.7 % of the total number of troops, and up to 30% of the total number of sanitary losses. In the scientific literature on the issue of post-traumatic stress disorder (PTSD) and combat trauma (hereafter BPT), often found as the average of its distribution in the 30 % of the number of personnel who took part in the fighting. A separate study reported that long-term effects of combat stress, in fact speaking different power levels of PTSD (BPT), have from 50 to 55 % of the combatants who participated in local wars and military operations over the past decade [7, 8].

The study of the experience of warfare in Afghanistan showed that 34% of sanitary losses among the personnel amounted to mental disorder. The restoration of psycho-physical functions of soldiers who were injured in Afghanistan lasted up to 3 months after discharge from hospitals and professional rehabilitation of those who witnessed the deaths of his comrades and himself, in their words, “miraculously survived” lasted from three to five years [2].

In the armed forces of the United States, Germany and Canada operational stress management is a multi-level structure of counsellors, doctors, psychologists and is supported by specially developed methods of psychological assistance to soldiers. A group of psychologists, psychiatrists and their assistants seamlessly integrated into a military unit. It organizes the cooperation with medical authorities and priests.

Since 1999, the second marine division corps USMC Camp Legume, North Carolina implemented a program of operational control of stress “OSCAR” – programme of the operational load control and capability. This partnership between the military and specialists of psychiatry. It differs from all previous programs of considerable support for the mental health of the soldier during the fighting, embeds expert control mental health directly in the units of tactical level, not long-term treatment in stationary or mobile institutions of the older command [10].

During the deployment in the new position area, the representatives of the group “OSCAR” carried out an active influence on Marines also continue to provide support to their units after their return.

One of the indicators of programme effectiveness is the degree to which the methods of the psychiatrists in the marine units were supported by Marines. All three marine divisions became enthusiasts of the program “OSCAR”, and air forces, and logistics divisions proposed implementation of the program within their institutions. In addition, in 2005, the Marine Corps had a psychiatrist from the team “OSCAR” in the

structures on work with the personnel Department at headquarters, to coordinate efforts to control workloads of the Marine Corps. The Marine Corps program of the control voltage of the personnel fall under the supervision of the Deputy Commandant of manpower and Reserve Affairs, and not of the institutions providing medical support of the Marine Corps [10].

In the armed forces of most NATO countries the object of evaluation and prediction of motivation and psychological stability the psychological stability of certain "elasticity". For rapid determination of stress factors of combat and the psychological stability of the unit statutes of the NATO armies provides a convenient rating settings, which allows you to automate the collection of data by personnel without special training.

For example, in the U.S. armed forces since the mid 1990-ies of the field created a computerized system of collecting processing and storing information about the state of the environment and its influence on the health of military personnel. Since 2007, implemented the model of development of psychological stability, which provides timely information resource for understanding and determining the spectrum of factors of moral and psychological pressure, determines the full spectrum of combating stress factors and their necessary results [11].

This approach has increased the ability of personnel separately located divisions to self-monitoring of stress factors and the introduction of appropriate measures. It provides managers with information and practical strategies for making organizational decisions and providing moral and psychological support for the restoration of combat readiness units and efficient control under combat conditions.

On behalf of the Department of defence in 2011, a group of scientists of departmental and civil institutions were once again the problems of classification of factors of combat and stability assessment [11].

The result of this research was improvement of the model of development of psychological stability units, which is shown in Fig. 1.

<table>
<tr><th>Optimal condition</th><th>Reaction</th><th>Sick</th><th>Injured</th></tr>
<tr><td>Peak performance
Positive kind
Understanding the purpose
The scope of the task</td><td>Irritability
The feeling of difficulty
Poor sleep and the inability relax-met
Concentration on the issues</td><td>Guilt
Reduced energy
Anxiety
Loss of interest
Social isolation</td><td>Depression and anxiety
Anger and aggression
A danger to themselves</td></tr>
<tr><td>Willingness</td><td>The limited willingness</td><td>Requires recovery</td><td>No fighting capability</td></tr>
<tr><td colspan="3">Leaders, soldiers and families</td><td>Medical staff</td></tr>
<tr><td>Education and training</td><td>Risk reduction</td><td>Intervention specialist</td><td>Treatment and recovery</td></tr>
<tr><td colspan="4">THE SUBJECTS OF INFLUENCE, THE CONTENT OF ACTIVITIES</td></tr>
</table>

Fig. 1. The model of development of psychological stability of the units

Conclusions. In view of the above potential psychological support of troops (forces) of Armed Forces of Ukraine should build on the results of the implementation of NATO standards and experience in application of psychological knowledge in the context of the armed forces of Ukraine.

The concept of operational stress control "OSCAR" is certainly not new, but the program has worked out real mechanisms for the provision of urgent psychological and mental health care in combat conditions, so there should be implementation of normative models of development of psychological stability of divisions of the job responsibilities of the management personnel of all categories of armed forces of Ukraine.

The scientific justification of the results the structure of psychological support of the armed forces of the United States, in the opinion of the authors, can be used for the development of psychological support of the use of military units and divisions of troops (forces) of Armed Forces of Ukraine.

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Оценка уровня психологической стойкости личного состава во время управления подразделениями войск (сил)

Резюме. В статье проведен анализ опыта психологической поддержки во время применения подразделений вооружённых сил США, Канады и Германии. Раскрыта методика оценки психологической стойкости личного состава подразделений войск вооружённых сил США, применение которой оптимизирует процессы определения показателей боевых возможностей воинских частей. Предложены пути внедрения соответствующих методик в систему управления воинскими частями и подразделениями ВС Украины с учетом стандартов НАТО.

Ключевые слова: психологическая поддержка, методика, психологическая стойкость.

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Formalized management model resupply of materiel operations (combat) troops (forces)

Resume. A formalization case the transport of financial facilities frame is examined in the article, the use of which will allow promoting efficiency of administrative activity due to automation of the proper processes.

Keywords: case frame, transport of financial facilities, criteria of choice.

Formulation of the problem. Experience the counterterrorist operation in Ukraine showed that logistical support Armed Forces of Ukraine does not meet modern requirements. President of Ukraine – Supreme Commander of the Armed Forces of Ukraine described the current state of logistics as critical. He identified the need for improving cardiac system Logistics of the Armed Forces and other military units of the state. Deliveries of material resources is part of the logistical support of troops (forces) and therefore the comments of the President of Ukraine to fully include subsystems logistics. First of all it is about the transportation of materiel management.

Currently, the management of the delivery of material and technical means is characterized by a number of issues, including:

1. Processes Management resupply poorly linked, there is no clear interaction between them.

2. The majority of processes are not automated, even in developed countries, especially in NATO countries, these processes are automated completely.

3. No integration of management processes resupply of materiel for the Armed Forces and other military units in a single state automated information system.

For the above reasons the existing management of the transportation of the material means it does not ensure the required efficiency, flexibility, transparency and openness, that does not ensure the necessary effectiveness of this activity.

Based on the issues that define the existing management of the transportation of materiel, **the aim of this paper is to develop** a formal model that aims to improve the efficiency of the transportation management of material resources by automating the processes of governance. n turn, referred to automate management processes need to formalization, that is needed to develop formal models. This model provides for a special mathematical software. It can be an important component of a functional

perspective automated control system for the transportation of material.

Model resupply of materiel intended for the formalization of processes to ensure materiel troops (forces) at the time of surgery (fighting), including the definition of common needs resupply of materiel. The model is as follows: supply of troops (forces) the material means at present; the overall demand for material resources; opportunity, scope and term of the transportation; Stockpiling ability to set rules, or recharge their spending in particular areas, objectives and specific needs of military units. In addition, the model allows us to identify opportunities for different modes of transport and distribution of the transportation by mode.

The structure of the model can be represented as four blocks (partial models), including:

1. Partial model 1 (definition of total resupply) is designed based on the need for material resources each user, if available, the standards of maintenance of minimum reserves determine the amount and timing of the transportation for each stock. In addition, it must determine the total volume of the directions and abroad.

2. Partial Model 2 (identify opportunities for each vehicle) should aim to spend a choice of routes in the network routes that meet the transportation requirements for different types of material means detect the presence of vehicles and on this basis to calculate the possibilities of each mode of transport between the sender and receiver and between borders and given directions.

3. Partial Model 3 (determination of total transport capacity in the transportation system). It should provide an opportunity to calculate the overall performance capabilities of transport for the transportation volume and identify the reserves defined by lines and areas.

4. Partial Model 4 (distribution transport lines and consumers). This model should provide the answer as to distribute the transportation volume by mode when its capabilities are limited and unlimited.

The greatest complexity presents a selection of mathematical methods for implementing private model, which belongs to a class of models for resource allocation.

In addition, the selected method of partial models must meet the following requirements:

provide a range of solutions close to the optimum;

algorithm that implements the method should be useful for computing on modern electronic computers;

the accuracy of the method and model of delivery of materiel to be singing with dimensional accuracy and authenticity of the original (input) information;

meet the requirements of speed the implementation of all the transportation model.

Private transport model for the distribution of performance for a given volume of deliveries is reduced to a problem of its distribution by type of transport and can be solved on computers in two stages.

The first stage is divided by the volume of transportation modes between the districts of sending and receiving. In this case, the task on

transportation, as well as a general model of logistics.

The first phase produced a policy decision on the use of different modes of transport on the implementation of the delivery volume of the directions, ie between areas of origin and receipt of material resources.

This decision defined the role and place of each mode of transport in the performance of the overall task of delivery of material.

In the second stage vehicles (units) for each mode of transport are distributed indicating the specific time of loading, unloading and routes. In fact, at this stage of working out plans for each transportation mode of transport.

To implement the model of delivery of the first phase can be used the same methods as in the model of financial support in the distribution of material resources, that method of linear programming and expert assessments.

The second stage of the delivery model significantly increases the size of the task and is necessary to the great number of senders and recipients withstand request time decision. The use of methods of linear programming and dynamic on the second stage of the delivery model presents significant difficulties. Therefore, you should evaluate the use for this purpose methods such as the method of branches and borders, combinatorial methods and evolutionary simulation methods.

Conclusions. The experience of the counter-terrorist operation in eastern Ukraine showed that the management of the transportation of materiel does not meet modern requirements does not ensure the necessary effectiveness of troops (forces).

Therefore, an urgent task for the Armed Forces of Ukraine today is to increase the efficiency of the transportation management of material resources by automating the system.

The first step towards automation management system transportation of materiel management processes are formalizing this system is formalized development model that is the purpose of this article.

The developed model formalized its structure consists of four partial models. Implementation of the model by using analytical relationships, methods of variational series, graph theory and method of dynamic programming.

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Формализованная модель управления подвозом материальных средств в операциях (боевых действиях) войск (сил)

Резюме. В статье рассматривается формализованная модель управления подвозом материальных средств, использование которой позволит повысить эффективность управленческой деятельности за счёт автоматизации соответствующих процессов.

Ключевые слова: модель управления, подвоз материальных средств, критерии выбора.

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The concept of border security in the context of international relations theory

Resume. Based on the international relations theory, the conceptual framework of border security has been grounded. Its essence is to ensure the sustainable development of society at different levels of the global system with its borders through the interaction of global, regional and national subjects while the dominant role is preservation to the state.

Keywords: border security, international relations theory, conceptual framework, classical realism, transnationalism, schools of peace studies.

Problem statement. The beginning of XXI century marked by prompt changes in all spheres of social being caused by globalization of political and economic world processes. Its consequence is strengthening of countries interdependence, reformatting of world system model with attraction to it new subjects of transnational measurability which objectively levels value of the national states, reduces level of their sovereignty. At last separate "nation" ceases to be the subject of world history. It has been increasing the level of openness of international system which leads to cardinal changes in international security environment, in particular to its regional segmentation and institutionalization of new borders, strengthening of borders vulnerability. Creation of more flexible security systems interactions becomes topical, capable first of all quickly and effectively to react to globalization calls of transborder character. Conditionality of such systems by the border factor gives the grounds to articulation of a phenomenon of border security and its displays at different levels of the international system.

The analysis of last researches and publications. Research of border security and approaches concerning its maintenance is begun in the end of XX century in different areas of social and humanitarian knowledge which gives the grounds to talk about interdisciplinary character of investigated phenomenon. In its conceptual context domestic (O. Ananijn, Yu. Dem'janjuk, Ye. Kish, V. Kirilenko, M. Litvin, V. Lipkan, etc.) and foreign (M. Anderson, B.Buzan, O.Vevir, Ja de Vilde, S. Golunov, V. Gubchenko, V. Dmitriev, A. Kulakov, O. Martines, J. Hajem, V. Rodachin, M.Ribalkin, A. Paasi, O. Tynjanova, etc.) scientists try to find out onto logic and epistemologic aspects of border security. However, results of such attempts leave uninvestigated in the agenda issues concerning definition of border safety problematic in a context of the theory of the international relations, levels of its analysis and perspective directions of research.,

Purpose of the article - on the basis of the comparative analysis of scientific discourse security opinions in the theory of the international relations to prove border security conceptual

principles that will promote the decision of scientific problem of its maintenance.

Partial research tasks: specification of security essence from a position of laws development of social objects; conceptualization of border security through synthesis of opinions about security in the theory of the international relations, politological schools of classical realism, transnationalism and schools of peace researches.

Statement of the basic material of research. For conceptualization of border security and comparative estimation of different approaches in the security theory as one of spheres of the international relations theory, the great value has finding-out of essence of security as social phenomenon.

Essence integrity of the notion of security is represented by unity of three aspects: ontologic (set of properties concerning preservation of object of security), substance (basic essence of security is equivalent to development of qualitative specificity) and functional (realization of possibilities of object of security to carry out the appointment) [1, p. 28]. Thus quality development displays a semantic kernel of concept of security as it provides both survival maintenance, and efficiency of functioning (in order to develop - it is necessary to exist; and to function effectively - it is necessary to develop). Thus, taking into account all designated aspects, it is necessary to consider security of social objects as immanent property which plays an important role all stages of evolution.

Determinants for formation of opinions about the concept of border security are issues concerning type of social objects of such security and character of threats to their development in boundary space. Search of answers causes necessity of the analysis of problems of border security through a prism of traditional and modern approaches in the security theory.

The traditional concept of security which dominated till the end of "Cold" war is based on the basic postulates of a paradigm of political realism. On the one hand, some adherents of ideas of realism considered borders as function of relations between the adjacent countries. On the other hand, representatives of the traditional concept of security considered border as a rigid cover of the state which protects it from military threats from the outside [2]. But anyway the position of realists declared central-state security model, ignoring non-state and sub-nation subjects, and also necessity of the account of substantial problems of cooperation between the states, in particular the border.

The situation when the problems of border security do not receive proper attention has changed in connection with world scale transformations. New threats have come to change military-political and ideological bipolar opposition: interstate conflicts on religious and ethnic basis, terrorism and extremism displays, environmental problems, intensification of world and regional migratory processes, transborder organized crime and other nonconventional threats.

In the theory of the international relations attention was paid to new

concepts of security in which, except the basic subjects of such relations − the states, other subjects of non-state character began to appear. In particular, theory of transnationalism became popular according to which international relations are interactions fields not only of the states, but also non-governmental organizations. Representatives of this direction could not avoid regulating function of borders in development of transnational communications and interactions of the states with four kinds of transborder streams of global character: information, transport, finance and people. It is mentioned in the works of transnationalism founders that border measures of the adjacent states for the development of such communications (in particular the protectionism or, on the contrary, liberalization of regime of foreign trade) have great value with internal measures of the corresponding states and organizational measures which are set at the international level. Focusing attention on the fact that the border becomes more penetrating for transborder streams, adherents of transnationalism ideas recognize that it keeps powerful value as a protective barrier from offenders.

Ideas of transnationalism have created preconditions for substantiation of the concept of security during globalization epoch. Today interest to border problem is connected with globalization/regionalization processes. Globalization causes leveled security structure in territorially- spatial measurement of the international relations owing to redistribution of functions between borders of different level and type. Appointment of such structure - counteraction to globalization calls and threats by common efforts of the state and non-state subjects that postulate importance of security cooperation at different spatial levels of security [3].

Formation of a new, postmodernist paradigm of security analysis is connected with a globalization discourse that displays in new critical directions of security researches (feministic, gender, postcolonial, poststructuralism, etc.). Considering a social phenomenon of security and its connection with development of society, among new approaches in frameworks of poststructuralism direction a wide recognition received researches of B.Buzana, O.Vivera and their Copenhagen school which also is named the European school of security. The concept of a society security which urged to fill distance between security of the state and security of people became the most influential idea of conceptual expansion of researches of security of this school. The concept of society security is actually reduced to non-military threats and non-military decisions when state (state security) or individuals (personal security and security), and a society is not the subject.

While state security is defined by threats for the sovereignty (if the state loses the sovereignty, it cannot exist as the state), society security concerns only threats for identity of a society (if a society loses identity, it will not survive as a society). Thus definition of such threats is possible through their subjective perception a society. The specified positions were put in a theory of securitization which became one of

outstanding achievements in researches of security within the limits of mentioned Copenhagen school. Viewing in works of scientists of Copenhagen school "rigid", namely state-centric security concepts is performed in categories «securitization», which has generated representation about "soft" security. Concept of "soft" forms of security is based on belief that «safety is a basis of individual and collective existence» [4]. Border security concerns soft forms of security also. Thus borders are interpreted as limiting factor of territorial «spacious security»; lines of transition to adjacent territory; peripheral units; lines of contacts with neighbors; transborder, regional units which are generated under the influence of close interaction and multiculturalism.

Taking into account the achievements of critical directions of security researches concerning institutionalization of "soft" social forms of security, special meaning in context of definition of border security conceptual principles gets an identity discourse. It means that conflicts at the border can be avoided not only by means of utilitarian tools like diplomatic negotiations, «balance of forces» or «collective security», but through manufacturing of general identification "markers", disclosing of synergetic potential. Schematically it is possible to present it in this way: integration - identity - interests - border security - stability [5; 6].

Conclusion. Thus, on the basis of comparison of traditional and new approaches to security in the theory of the international relations, it is possible to assert that conceptual basis of border security as properties of quality development of social objects under the influence of the border factor represent critical directions of security researches of the European school of security. Concept of security of society which concerns both security of the state, and security of people is the most influential idea of conceptual expansion of such researches. While state security is defined, behind sights of representatives of realism, "rigid" threats for the sovereignty, security of society in postmodern interpretation concerns mainly "soft" threats of its identity as it is a basis of individual and collective existence. Source of such idea became researches of British school of the international relations which has developed the concept of "the international society» during an epoch of globalization with responsibility of the states for its development and the future, that postulates importance of security cooperation at different spatial levels of security.

The discourse of security of society and preservation of its identity in the conditions of development of transnational (transborder) processes within globalization has put the bases to an institutionalization of the border security which conceptual principles are directed on maintenance of constant development of society (social objects) at different levels of world system with its borders through interaction of global, regional and national subjects. The dominating role thus is stored behind the state.

The further directions of scientific searches are substantiations of system of border security of Ukraine

in space of the world community security.

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Концепция пограничной безопасности в контексте теории международных отношений

Резюме. На основе теории международных отношений обоснованы концептуальные основы пограничной безопасности, необходимые для обеспечения устойчивого развития общества на разных уровнях мировой системы с её границами через взаимодействие глобальных, региональных и национальных субъектов при сохранении доминирующей роли государства.

Ключевые слова: пограничная безопасность, теория международных отношений, концептуальные основы, классический реализм, транснационализм, школы мирных исследований.

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Directions improvement of CASS management by the personnel of the Armed Forces of Ukraine

Resume. Analyzed ways of improving automated systems, their advantages and disadvantages. reasonable integration of existing systems as a suitable direction of improvement, shows a diagram of the integration of automated systems of personnel department.

Keywords. automated systems, improvement, integration, ERP-systems, personnel department.

Statement of the problem. At the present stage of the Armed Forces (AF) of Ukraine for human bodies are used (in full or limited scope) 6 automated systems (AS) [1]. Each of these systems is able to solve problems in a specific limited direction; however, none of them are able to provide the full implementation of all necessary functions. Therefore, there is an actual question on the integration of existing speakers to ensure all needs of the personnel agencies of the armed forces of Ukraine.

Analysis of recent researches and publications. Regulations governing the development of the system of personnel policy in the armed forces of Ukraine are determined by the requirement of use in everyday activities of human resources automated systems of personnel management [2, 3].

In publications on the issues of workforce management within the AF of Ukraine noted that the staffing agencies AF do not have appropriate analytical support [4].

The application of information technology to improve the efficiency of the system of personnel management of the armed forces of Ukraine was considered by the experts of the Scientific-methodical center of personnel policy of the Ministry of defense of Ukraine [5, 6].

However, these publications only declared the necessity of automation of processes of human bodies, without any specification as to the validity of the organizational and research activities.

The aim of the article is substantiation of ways of improvement of the AS, designed to automate the activities of personnel agencies of the AF of Ukraine.

Presentation of the basic material. Today in the armed forces of Ukraine there is an extensive system of personnel management hierarchical level that allows human resources of all categories of personnel of the respective items of destination.

The personnel authorities of the highest level responsible for:

- organization and analysis of the personnel situation in the armed forces;
- participation in planning and determined the needs of the armed forces in personnel;
- organization and quality control of manning the armed forces and other military units personnel, the implementation of measures to optimize

the structure of personnel;

- determining the needs of the armed forces and other military formations in personnel;

- control over the conduct of pre-conscription training of youth of pre-conscription training;

- preparation of proposals for the creation of a reserve of military-trained human resources in relation to those officers of the reserve;

do the governing of the armed forces information and analytical materials about the state of staffing of the AF;

preparation and reporting on personnel issues.

For automation of actions on the implementation of these functions in personnel agencies of the armed forces of Ukraine are the following speakers:

information-analytical system of accounting personnel of the armed forces of Ukraine "Staff" (IAS "Staff")

computer system centers of manning the armed forces of Ukraine servicemen under contract "Contractor" (CS "Contractor")

the software package "automation of district (city) Commission for the conscription of citizens" "Call" (SP "Call")

subsystem "Personnel" Uniform system of administrative-economic processes of the AF of Ukraine

software accounting system of the defense resources military formation "Channel-1" (SS "Channel -1C")

information-analytical system of planning of mobilization deployment of the AF of Ukraine "Shaft-M/1" (IAS "Trunk-M/1").

The possibility of using the existing AC at various levels of the management bodies of the armed forces of Ukraine are given in Table 1.

Table 1

The use of AS at different levels of the management bodies of the AF of Ukraine

№ з/п	Name AS	Level of government		
		upper	lower	serenely
1	IAS "Staff"	+, impractical	+	+
2	CS "Contractor"			+
3	SP "Call"			+
4	Subsystem "Personnel"	+	+	+, impractical
5	SS "Channel -1C"		+	+
6	IAS "Trunk-M/1"	+	+	

In information analytical system "Staff" is insufficient analytics capabilities to staff and to develop analytical reports, so it is impractical to use at the top level of management.

Given the complexity of setting up jobs of subsystem "Personnel", training of personnel to work on them, the high cost of licenses for the use and uselessness of the full capabilities of the specified AS in human bodies lower-level management, we can make a conclusion about inexpediency of its use on the lower level of management.

Given the above, we can conclude on the feasibility of implementing various management levels of the most distinctive and sought-after speaker AS. The advantages of this approach are to obtain more complete information at the lowest cost. But immediately problems arise:

- data exchange between different software environments (Tab. 2), which

made the system

- maintain the relevance of the data
- updating a shared database in real time
- providing section of the data access and the effects of changing settings in any of the AS for the procedure of exchange of information between all speakers.

Table 2

Technical characteristics of the AS personnel agencies of the AF of Ukraine

№ з/п	Name AS	Development tools	Architecture	OS	Software platform	System type	Vulture information
1	IAS "Staff"	Delphi	Client-server	Windows	MS SQL	PCM, LAN	secretly
2	CS "Contractor"	Delphi, html	Client-server web-service	Windows	MS SQL	PCM, LAN, Internet	open
3	SP "Call"	FoxPro	File-server	Windows	FoxPro	PCM, LAN	open
4	Subsystem "Personnel"	SAP NetWeaver	Client-server	Unix server Windows	DB2	Corp. network	secretly
5	SS "Channel - 1C"	1C: Enterprise. 1C: Accounting 7.7	File-server	Windows	1C	PCM, LAN	open
6	IAS "Trunk-M/1"	Delphi	Client-server	Windows	MS SQL	PCM, LAN	secretly, top secret

In the development of any software products exist the problem of aging program at the time of its creation and, as a consequence, the need for modifications immediately after the completion of the development. You have the option to improve existing AS expedient not only from the point of view of creating a single information environment between all human bodies, but also from the point of view of expanding the list of information which is collected to the current needs. In this embodiment, a double benefit is achieved. As a disadvantage of option the following may be noted: existing the AS has different manufacturers and, as a consequence, the heterogeneity of assets (primarily software). If the system is made closed, that is, changes in it can make only developers, then in each case it is necessary to involve different specialists, to prepare separate documents, conduct the complex of measures to protect the information, to make changes to the MSS that are integrated with the system improved.

When developing new AS is positive that will take into account all the changes that have occurred in the activities of personnel authorities (regulatory, procedural), will be used modern development tools. In the transition to NATO standards and the trend towards the universal automation of activity of the Ukrainian armed forces, this is a significant advantage. On the other hand, there is a need to train specialists to work on the new workplaces; the development cost will be higher than the cost of improving existing ones.

When developing new speakers important are the following requirements:

the system should be open and not

to be a “thing in itself”, which can only make the developers (owners of technology). Technologies that are used during development should be modern and take into account trends in the development of software. This applies both to the mechanisms implemented by the developers of the software and to the tools that are used during development

use of the software products, or carry the means of modification of software, are or so simple and universal that does not require modification

while developing the AS should be observed modular organization of applications and data because it can be made additions and changes with less cost and guaranteed no changes in those parts that are not considered when modifying other parts.

On the basis of the information provided above, to save frequent and appropriate public funds to conduct the improvement of the AS personnel agencies of the armed forces of Ukraine through the integration of already existing AS. The more that leading military theorists have proposed to merge certain isolated AS single military in the information space [7].

As the Ministry of defence of Ukraine have experience in implementation of ERP-based systems world leader in this field, SAP ERP is the Central implementation of the Unified automated system of administrative-economic processes (UAS AEP) the armed forces of Ukraine and in view of the significant potential of ERP systems, we can offer the following scheme of integration to AC to personnel agencies of the AF of Ukraine:

1. In human bodies, top-level, which carry out functions of personnel management, it is advisable to implement a subsystem “Personnel”, which is an integral UAS AEP the armed forces of Ukraine, brings together data from systems that are already working in the sun or will be created. [7]. The product has a powerful mechanism for analytical processing of all the information that is included in common databases, and the ability to display it in a convenient visual form (subsystem “Solutions”). In addition, the subsystem “Personnel” has a number of advantages, namely: it is possible to create analytical reports; to subsystem contains a powerful search facility for all types of data in the database; ensured the integrity and completeness of the stored information; eliminated multiple data entry and discrepancies in them; advanced capabilities in the development and maintenance not only reporting, but also smart forms (forms that are automatically populated based on queries); the flow management.

2. In personnel agencies of the middle and lower levels, which, in general, perform the functions of accounting it is appropriate to implement IAS “Staff”, which was developed by order of the Ministry of defense of Ukraine and is his property.

3. To obtain initial information analytical system “Personnel” in its work should interact with the IAS “Trunk-M/1”, CS “Contractor” and PC “Call”.

Information in respect of conscripts and pre-conscripts have to give the PC “Call” contract servicemen – CS “Contractor”.

IAS “Trunk-M/1” is a source of

information about the organizational-staff structure of troops, mobilization and recruitment resources. In addition the IAS to the IAS "Staff" should do the classifiers and dictionaries. Also after the dismissal of a soldier in his stock record card in electronic form must be sent to the UNE "Trunk - M/1".

You must focus on several critical aspects [7].

SAP is a real-time system, and to introduce it, the communication channels should ensure the transfer of information to "on-line" mode on the highest degree of secrecy. The inability of the telecommunication systems of the armed forces of Ukraine to provide closed channels of communication was the reason that this platform was not implemented in the activity of the sun during this time. However, it should be noted that this problem applies to all speakers that work in "on-line" mode.

Special consideration is given to the use of software from the global software market. While searching for an answer to the mentioned question it is necessary to consider the following points:

- warning against falling into dependence on foreign suppliers for all parameters starting from the procurement of licenses and to the constant accompaniment of these licenses;

- the presence of such software products that we are unable to develop ourselves, or which will require very large expenditures of funds;

- the need for Ukraine to integrate to the European and Euro-Atlantic collective security system and accordingly need to adapt the content of the defense planning to generally accepted standards.

Conclusion. The most appropriate system for integration with the AU of human resources is the subsystem "Personnel", which more fully covers the functions of human bodies and built on the basis of ERP-systems is a world leader in SAP ERP. Despite the difficulties of introducing this system, its advantages over other AC output SAP in indisputable leaders.

It should be noted that the solution to these problems is not a lack of capacity or resources, and the reluctance of senior management to make responsible decisions. Achieving positive results is possible when you focus all branches of government who are involved in the defense of the state.

Further research is advisable to send in the direction of solving the problems associated with information security.

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Направления усовершенствования автоматизированных систем управления персоналом Вооруженных Сил Украины

Резюме. Проанализированы направления усовершенствования автоматизированных систем, их преимущества и недостатки. Обоснованна интеграция существующих систем как целесообразное направление усовершенствования, приведена схема интеграции автоматизированных систем кадровых органов.

Ключевые слова. автоматизированные системы, усовершенствование, интеграция, ERP-система, кадровые органы.

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Role of stratagem and critical thought in relation to maintenance and development of informative sovereignty of the state

Resume. The article a role and mechanisms of the use of stratagem and critical thought is considered for maintenance and development of informative sovereignty and informative safety of the state.

Keywords: information sovereignty, stratagem thinking, critical thinking.

Rising of problem. Informative sovereignty of the state is ability of the state to control and regulate the streams of information with the purpose of observance of laws, rights and freedoms of citizens, guaranteeing of national safety of the state.

Basis of informative sovereignty of Ukraine are national informative resources. All proper to her information is included in the informative resources of Ukraine, regardless of maintenance, forms, time and place of creation. Ukraine independently forms informative resources on the territory and freely disposes of them, except for cases, foreseen by laws and international agreements. Informative sovereignty of Ukraine is provided: by the absolute title of property of Ukraine on informative resources which are formed due to money of the state budget; by creation of the national systems of information; by establishment of the access mode of other states to the informative resources of Ukraine; by the use of informative resources on the basis of equal in rights collaboration with other states.

Today humanity passes the very responsible stage in the development. The processes of globalization, the catalyst of which in the last decades informatization became on the basis of electronic technologies, predetermine appearance of the real threat of world standardization, loss of national originality people, consciousness, and civilization - multiple possibilities of further development. Therefore decision of problem of high-quality storage, effective use and perspective development of sovereign for every state, nation of state informative resources, and arrays of information, maintenance of information about practical experience, spiritually-valued reference-points, mine-out many generations of the Ukrainian people, as well as other people of the world, development of effective instruments and mechanisms of providing of informative sovereignty of the state in modern terms is the important condition of community development and near-term task of present time.

Analysis of the last researches and publications. For today providing of informative sovereignty is in a that or other degree determined by a number of

operating legislative acts, and also international legal acts which touch adjusting of relations in the informative sphere of activity, for example, "Convention about cybernetic criminality", other intergovernmental agreements. Among works in this direction deserves attention also and payment of domestic researchers. Largely it is conditioned by objective reasons; that the questions of informative safety, maintenance and development of informative sovereignty examined in the period of forming of new legal base of the Ukrainian nation-state. Development of this problem is based first of all on the system of positions of Constitution of Ukraine, positions of century related in particular to realization 17, speech goes in which about defence of sovereignty and territorial integrity of Ukraine, providing of her economic and informative security as major function of the state, matter of all Ukrainian people.

Informative safety is inalienable direction of development of informative society, development of which must go not only through the increase of technological possibilities of realization of informative exchange but also through deep realization by all subjects of informative relations (by the proprietors of information and her users, producers of information technologies and facilities, service providers, state) of necessity of realization of all necessary, especially preventive, measures on defense of informative resources and providing of informative safety of the state, informative sovereignty and others like that.

The purpose of the article is determination of principles of mechanism of application of stratagem and critical thought in relation to maintenance and development of informative sovereignty of the state.

Exposition of basic material. One of main directions and methods of public informative policy there is providing of access of citizens to information; creation of the national informative systems and networks; providing of the effective use of information; assistance to the permanent updating, enriching and storage of national informative resources; guaranteeing of informative sovereignty of Ukraine and other.

The main law of world development from the beginning of XXI of century globalization became with her objective and appropriate processes are integration, globalization of development, global transformation, concentration of management and other. For entire without an exception countries it opens new prospects, besides, carries new threats. It can not remain from one side these processes and Ukraine. Stay on verge of two large spaces of civilization (European and Eurasian) she is a determinative her political fate. Choice foreign-policy to the vector, and accordingly and strategies of national safety for Ukraine are predetermined by actuality of the article. The processes of globalization studied many researchers. These questions became a call for most national states, without regard to their spatial placing, level of political and economic development. Conception of globalization in modern political science is one of biggest-selling instruments of analysis of international processes. In

the process of realization of global policy contradictions of international relations are leveled in, economic, informative and other military-political spheres.

One of the most perspective methods of prosecution of modern war there is informative war, namely are methods of informative and psychological influence on individual, group and public consciousness (subconsciousness). Realization of similar methods in an informative epoch requires a revision at state level of the key going near realization of foreign and internal policy, in particular informative. At informative level here the question is about the clearly directed informative operations, which have for an object obvious and hidden influence on consciousness (subconsciousness) of population and maintenance of that part of informative bases, which applies constantly public.

Next to the problems marked higher it is needed to bear in a mind also and those, that in our time yet barely visible in public practice - factors of possible external informative influence (to pressure) on the system of national, national and other informative bases (bases of knowledge and data). They are related to the fixed not certain and not expressed "strategy of development of informatization not" studied for today, in modern society (to the state). Evolving together with community development, a policy and state administration in different cultures generated such specific of mastering of social reality as stratagem thought and critical thought, which allow:

а) to work out the indirect method of victory (achievement of desirable aims) in a fight (defending) for national interests - of stratagem thought;

б) really to estimate authenticity, exactness or value of the given (got) information, develop ability to search and find factors, reasons and alternative points of view, correctly to perceive a situation which was folded, on the whole and to change her the benefit (position) on the basis of the adjusted facts and arguments - critical thought.

Will consider essence of stratagem and critical thought of separate questions of providing (maintenance and development) of informative sovereignty of the state.

Stratagem of thought assumes a presence in the actions of individuals, organizations and even states of the hidden implication, hidden aims, intentions and actions which differ from officially proclaimed and declared. Presently a term "stratagem" can be used in a few values. In the directly applied variant he means a stratagem or cunning, reception in political, economic, informative, criminal activity, private life and others like that. Chinese stratagems acknowledge the only criterion of truth - efficiency of the actions in a race for power and resources. Thus there are not concepts of morality, spirituality, moral as necessary elements of other person or activity. There is an only criterion - efficiency. There are not friends and allies, all are enemies. Some enemies - obvious, some - secret (hidden) or potential. Morality and other spiritual attributes is examined as instruments which a man must use in the aims, but quite not as norms which she is under an

obligation to follow. General principle of Chinese stratagem - "Purpose justifies facilities". Similar practice was mine-out in the conditions of endless wars, when the questions of morality and moral stood far not on the first place. A question headed the list about a survival. Surviving is possible it was, saving and increasing own resources, concluding advantageous unions, subjugating more weak, avoiding wars with proponent.

Thus, under stratagem thought the variety of intellection of man, sent to the specific mastering to social reality in the conditions of opposition is understood, for the sake of achievement of interest (advantage, winning) by means of making of theory, rules, technical and concrete receptions of achievement of strategic advantage in a fight and opposition due to planning of the hidden trap, maneuver, reception, cunnings and others like that. In more wide sense, stratagem thought is the aggregate of mental operations, sent to mastering of social and political reality by means of planning of strategic receptions and systems "indirect motions", which are used for achievement of the hidden purpose, receipt of advantage or intercept of initiative in a fight.

Critical thought is a very important moment in the process of forming medias-cultures of personality, but it is necessary to distinguish critical thought as ability of personality to adequate perception of media products from the critical setting in relation to medias-educations and medias-cultures on the whole. It is determined many authors of concept "critical thought" within the limits of paradigm and on her principles basic methods and technologies of his development are outlined. The signs of critical thought are abilities to investigate the real productive and vital situations; to pull out the different variants of decision of the put tasks, compare, to estimate, to expose defects and advantages each of them, choosing optimal; to accept independent decisions and forecast their consequences.

Critical thought is yet named logical or analytical thought. People are mostly taught to critical thought aspire to the unambiguous determinations, classifications and looks to the same problem, it is important, that they learned to understand that absence of unambiguous often is not a defect or problem, and vice versa - by good possibility deeper to get to essence of things, anymore to know. Critical thought is clever thought of reflection, focused on the decision of that in what to believe and that it is necessary to do. It is an art to think about that, how you think, when they think about that, to think clear, exactly, clearly, intelligently, consistently; art of structural skepticism; art of exposure and overcoming of prejudices and unidimensionalness of thought; art of purposeful and deep reflection.

Distinguish five aspects which distinguish critical thought from other his types: critical thought is thought is independent; information is by an initial point, and creates reason without which a man can not think critically the quite not eventual point of critical thought, knowledge; critical thought is begun with raising of questions finding out of problems, which are necessary to be decided, critical thought aspires to the convincing argumentation; critical

thought is thought is social, mainly, what educational establishments must engage in any to the type, - to teach it people to think; critical thought always aspires to knowledge, because all connective ideas which line up in the filament of reflection and reasoning lean against the known knowledge, experience and "peep" in unknown.

Researchers offer the next algorithm of forming of critical thought: 1. What purpose? 2. What is known? 3. What to do? 4. Attained purpose?

Today on territory of our state psychological pressure is carried out from the side of foreign and domestic mass medias which conduct the so-called "informative war" against Ukraine, with the purpose of distribution of untruthful information about events which really take place in the state, kindling's of international enmity. Thus, there was a necessity of development of complex of measures, sent to perfection of the normatively-legal providing and warning and neutralizations of potential and real threats to national safety in an informative sphere, in particular:

development of bills about making alteration in some laws of Ukraine in relation to counteraction to informative (informatively-psychological) aggression of the foreign states, foreseeing, in particular, determination of the real state of results of negative informative (informatively-psychological) influence and mechanism of operative counteraction to negative informatively-psychological influence on the different categories of target audience;

development and introduction of complex measures of organizational, informative character in relation to comprehensive illumination of measures on realization of public policy in the field of providing of informative safety strengthening of control after inhibition of legislation on questions informatively-psychological and cybernetic safety of Ukraine;

use and development of stratagem and critical thought as basis of providing of informatively-psychological safety of man (citizen) from negative informatively-psychological influence;

use of measures on providing of distribution in the world of objective information about a social and political situation in Ukraine, in particular, by creation of corresponding structures for preparation and distribution in the world of high-quality competitive informative product.

Conclusions

1. As a result of purposeful informative activity of countries one is on one and to insufficient attention to forming and realization of own public informative policy defense of informative space, individual consciousness of citizens, mass consciousness of people, is one of the most sharp questions of national safety of any state and is basis of maintenance and development of her informative sovereignty.

2. Informative sovereignty, paraphrasing the known utterance, deserving something only for terms, when he can be reliably protected.

3. For prevention of possible threats and lawless actions there can be different measures and facilities,

beginning from introduction of philosophy of the deeply realized attitude toward the problem of informative safety and defense of informative space, to creation of the deep, echeloned system of his defense by physical, vehicle, programmatic and cryptographic facilities.

4. Facilities of mass communication assist becoming independent, stratagem and critical thought, modern perception of the world, aesthetic consciousness, skills of artistic analysis of products medias-arts, extend unlimited informative horizons, do information accessible for large public of users. Important also there is illumination for wide public of the so-called technologies of psychological influence, hidden technologies of manipulations and other.

5. Critical thought presents a analytical capacity for a stage-by-stage analysis, logically-argued judgment in relation to maintenance and form of medias-texts, and also independence, independence of thought from existent stereotypes, by a result what forming of own position is in relation to any medias-texts. Stratagem of thought foresees the capture of psychological defense which foresees the sound analysis of information facilities.

Acceptance and practical realization of these approaches, organizational and methodical measures, fixing of stratagem and critical thought in to direction of maintenance and development of informative sovereignty in the conditions of negative informative influence positively will influence on providing of informative safety of the state, will assist defense of national informative space and informative sovereignty of Ukraine.

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Роль стратагемного и критического мышления относительно сохранения и развития информационного суверенитета государства

Резюме. В статье рассмотрена роль и механизмы использования стратагемного и критического мышления для сохранения и развития информационного суверенитета и информационной безопасности государства.

Ключевые слова: информационный суверенитет, стратагемное мышление, критическое мышление.

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The new technologies, new systems of the arms, new character of wars

Resume. The conceptual approach to organization of modern military actions is described.

Keywords: the weapon on new physical principles, future wars, military technologists

Formulation of the problem. The emergence and improvement of new technologies able to significantly affect the character of weapons, military and special equipment and, consequently, the nature of war. At the same time reliably estimate this impact is not easy. While theoretical findings are not proven, confidently talk about the final formation of the new concept (paradigm) of weapons systems and the nature of war is difficult.

The article is to develop a conceptual approach to analyze the nature of the forces of different resources and determination on that basis as priority directions of development of weapon systems, primarily ZNFP that ensure optimization of its supply in the conduct of modern warfare.

Presenting main material. Experience of implementing military innovations in armed conflicts of recent years a number of military experts rated as the occurrence of at least two paradigms contactless and network centre wars. Proponents argue first that the main path of advanced weapons systems of the world aimed at creating weapons and military technology (IWT) can cause destruction to the enemy long-range precision weapons. Supporters of the idea network centre war see main priorities of arms and equipment to ensure maximum consistency in time and content of the intelligence-information control and fire (drums) systems. In general, these paradigms do not contradict each other, each has its strengths and weaknesses and they have an absolute right to exist. However, it is impossible to agree the content and contactless network centre wars completely determines the prospects of development of weapon systems, i.e., eliminates all uncertainty associated with long-term planning of weapons systems. Many uncertainties remain, and some areas of arms and equipment do not fit into this concept. For this reason, the search of the decisive reasons that form and shape of the armed forces and the nature of future wars, must continue.

During hostilities the army produces, use, transmit process and consume different types of resources:

- energy (mechanical, electrical, thermal, chemical, etc.);

- logistical tools (weapons systems, military and special equipment,

including ammunition, energy, military-technical property and other resources);

- information (data about the enemy, the environment, troops, command decisions, etc.).

Ideal conditions for performing tasks assigned to the armed forces are to deliver the troops all those kinds of resources in real time and thus in full (principle - all kinds of resources, both in volume and needs). In other words, the available information about the enemy must be accompanied by the decision immediately to the task defeat him and his troops must be able to (full resourcing) promptly implement this decision (to strike the enemy with the required level of destruction). The implementation of these principles can be called a perfect war.

In the real situation in the army between the representations of these types of resources there is a significant time gap. First comes the information is analyzed and transferred command of the troops of the decision; troops prepare to strike (of delay in the time necessary to accumulate resources) and Strikes spending in the energy of these actions and the logistical means. Zero time gap in the supply of troops to these types of resources meets perfect war.

Reducing this gap is an important area of efficiency fighting forces. Principles of network centre wars that increasingly have to perceive and implemented advanced armies in the world, is precisely to reduce this gap. However, it achieved so far by acceleration (approaching the real-time) delivery to the host only one type of resource - information. Regarding the delivery of other types of resources, there is still defined by traditional approaches: energy supply today still carried out by the forces (due to regular power sources built-in motors weapons and equipment, field power plants, thermal power generators, etc.);

Delivery troop's logistical means implemented by logistics and determined by the number and capacity of means of delivery speed of movement speed of loading and unloading.

Please note that the considerably increased forces need to impose energy of the logistical requirements for the delivery of large amounts of energy, implementation of which is extremely difficult. This modern fighting requires bulk deliveries of ammunition, military equipment, ammunition, etc. Because these two kinds of resources (energy, material and technical means) are major constraints in achieving ideal conditions of warfare. Of course, one could argue that these two types of resources can be delivered to the troops advance, but the uncertainty of future action leads to the fact that they are often not those that need them.

What are the ways to address these constraints?

Regarding energy - a reduction in the volume of consumption, finding alternative energy sources, and finding ways to distance transmission of energy from the powerful stationary sources to consumers, models, complex systems and weapons in real time. This would dramatically reduce the volume of energy delivery to the troops and thereby increase the mobility of troops, increase their readiness and efficiency of application capabilities.

As part of the material and technical means - reducing the volume of arms and military equipment supplied to the troops, including ammunition, energy, etc., reduce the time of delivery. At the same time it is necessary to drastically reduce the number of personnel that took part in the fighting, with reduced volumes of supplies of real property, water and food.

Existing weapons systems, methods of combat employment while precluding the possibility of implementing in full these ideas, however, in some of the world developed or developing designs and complex weapon systems that in the near future will carry out these ideas.

The list of areas of weapons and equipment that allow approaching the ideal of the war, include the following:

microminiaturization robotics and weapons and equipment;

use of alternative energy sources (solar panels, befouls, etc.);

reduce energy consumption while maintaining samples arms full range of functions they perform;

the development of wireless power transmission over long distances;

development of non-conventional weapons systems capable strike targets at large distances in real time;

bio nana technological creates weapons;

finding ways to reduce material and energy costs on the task (precision destruction, information and including cyber war).

The idea of instant defeat the enemy at a distance underlies directed energy weapons, which include:

- laser weapons, the ability to strike which is based on the creation and delivery of the object destruction energy electromagnetic radiation gamma, x-ray, ultraviolet, visible or infrared wavelengths;

- radio frequency weapons destruction which action is based on the formation and delivery of the object of affection of electromagnetic radiation of radio frequency waveband (microwave guns, sonic weapon, etc.);

- beam (accelerating) weapons, the effect of which is based on lesion formation and delivery of the object of affection directed beams of high-energy charged and neutral particles accelerated to near the speed world.

These weapons provide almost instantaneous delivery to the goal of striking power and distance destruction can be measured hundreds of kilometers. Produced by one or more sources of energy lesions can be applied directly to goals and transmitted to systems (complexes) weapon systems that accept and relay it to the object of affection. As such repeaters can be used space, air and ground vehicles. Large-scale implementation of the principle of destruction could radically change the system of logistic support troops, when most of the volume of material and technical facilities - the traditional ammunition - would be fully or partially excluded from the range of software tools.

Already, advances in micro robotics can create devices for local diversions, especially for the physical destruction of the enemy of senior management. Also option introduction into the body of senior people nana robots - killer-embryos - for the

subsequent impact on the media. Killer-embryo can secretly inculcated the body of object destruction and the signal put in place a capsule with a toxin. You can create a device the size of the smallest insect (about 200 microns) that can find people and introduce them Jade.

Information warfare and its component cyber war - one way to reduce the material costs of warfare. Keeping such a war assumes complete disruption of or disrupt the system of state administration and the Armed Forces due to the impact on computer networks such systems. As a result of the war state and military institutions and governments can be completely paralyzed and unable to organize the struggle against aggression. So the war between the states (and coalition) can be completed prior to the use of traditional weapons, that is, without the fighting between military factions. Information warfare, in essence, has become the perfect war waged in real time and does not require spending resources considered.

Conclusions. Described conceptual approach to military action is not contrary paradigms contactless and network centre wars, but complements and refines them in a number of areas, stressing the need for priority development miniaturization of weapons and equipment, reducing energy consumption for combat tasks, looking to alternative energy sources and the task of remote precision defeat the enemy real-time development of methods of cyber war. As a long-term scientific problem (at the level of basic research) should expand the search for the wireless transmission of energy over long distances, the use of methods combating bio nana technological weapons.

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Новые технологии, новые системы вооружения, новый характер войн

Резюме. В статье описан концептуальный поход к организации современных военных действий.

Ключевые слова: оружие на новых физических принципах, войны будущего, военные технологии.

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The system of key performance indicators of financial support of the Armed Forces of Ukraine

Resume. Based on the reviewed objectives and purpose of funds managers at each level of management was defined list of performance indicators of financial resource management, and offered a system of key performance indicators of financial support for the Armed Forces of Ukraine.

Keywords: the funds manager, financial resources, economic information, key performance indicators.

Formulation of the problem. The basis for drawing up of reports on the financial status of the Armed Forces of Ukraine (Ukraine AF) is economic information, which according to the management functions are classified on the accounting, regulatory, reference and routine. This accounting information is the most important which has following kinds: primary, financial and management accounting.

Management activities concerning the financial management are making reasonable decisions on the basis of objective information, which has a structure that meets the most important activities of the Armed Forces of Ukraine. This information should include not only financial performance, but also to characterize the structure of the receptors. In this case, the composition information should reflect all financial income and expenses and be as follows: financial resources, accounts receivable and payable, operating expenses and capital expenditures. It is important to be able to observe and analyze the impact of some other indicators and make informed decisions about levelling the negative impacts and to redistribute financial resources for the Armed Forces of Ukraine. Solving these problems is possible by using a system of key performance indicators to ensure financial Armed Forces of Ukraine.

Analysis of recent research and publications. At this time, the issue of developing key performance indicators of businesses is considered in sufficient detail. The authors proposed to define key performance indicators for the four directions: the revenue of the company (Goal), customer and internal business processes and motivate their employees. De Worms approaches to develop key performance indicators for the proposed budget organizations. However, the question of the definition of key performance indicators of financial resources in the military sphere remains relevant.

The purpose of the article. Based on clarified purposes and objectives at every level spending units, identify

performance indicators and a system of key performance indicators by identifying causal relationships between them and comparing their respective areas of financial management Armed Forces of Ukraine.

Statement of the basic material. In order to gain control over Use of Funds of the defence budget proposed the use of key performance indicators, in particular to develop a model of key performance indicators, identify causal relationships between indicators and implement their ranking.

The first step towards in the development of key performance indicators to ensure financial Armed Forces of Ukraine is to define the main tasks and objectives at each level spending units (fig. 1).

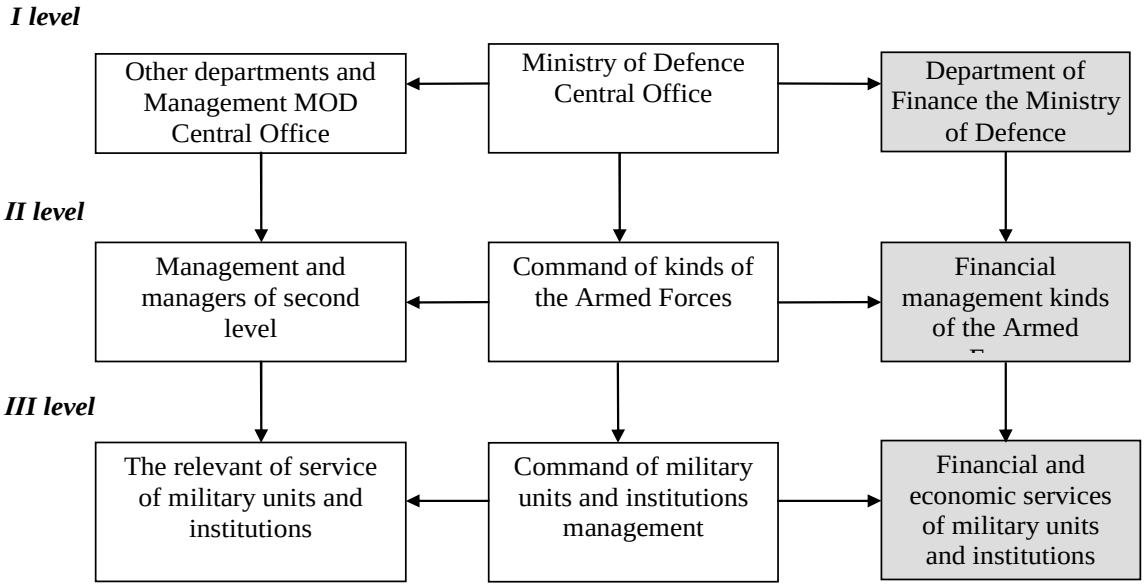

Fig. 1. The general hierarchy of financial of subordination in the Armed Forces of Ukraine.

The processes occurring during the financial and economic activity is a process aimed at the implementation of the budget and is displayed in accounting accordance with the acting legislation and the intradepartmental regulations, and, in turn, have control functions budget to prevent by excessive cost, ineffective or misuse of budget funds.

The registration process of economic operations provides account assets, capital, liabilities, cash and actual expenditures estimate of the Ministry of Defence of Ukraine. The resulting figures of financial and economic activity subject to analytical processing. These indicators are compared with the planned budget to further improve the planning and execution of the budget.

Based on the foregoing can formulate the main objectives of financial and economic activities of the Armed Forces of Ukraine and implement objectives according to decomposition levels of management:

for the first level is to ensure effective planning, allocation and use of financial resources of the Ministry of Defence of Ukraine – $Ц_{1.1}$;

for the second level:

- assessment of funding of the Ministry of Defence of Ukraine in accordance with its planned needs – $Ц_{2.1}$;

- forming a strategy for further distribution and use of financial resources of the Ministry of Defence of Ukraine – $Ц_{2.2}$;

- implementation of strategies developed management of financial resources – $Ц_{2.3}$;

- the allocation of priorities of financing programs of the Ministry of Defense of Ukraine – $Ц_{2.4}$;

for third level:

- reducing the time to perform of processes related to planning and allocation of financial resources – $Ц_{3.1}$;

- Improving the efficiency of of processes analytical and synthetic accounting resources – $Ц_{3.2}$;

- optimization of planning process and allocation of financial resources – $Ц_{3.3}$;

- accordance volume and terms of funding according to plan – $Ц_{3.4}$.

Accordance with the aims financial and economic activity at every level is proposed to use the following indicators:

coefficient of overdue accounts receivable – X_1;

coefficient of overdue accounts payable – X_2;

coefficient of bad accounts receivable – X_3;

coverage ratio accounts payable – X_4;

index of wear of fixed assets – X_5;

share coefficient in actual cash expenditures – X_6;

coefficient timely repayment of accounts payable – X_7;

coefficient budget performance (general fund) – X_8;

coefficient of the plan revenues (special fund of) – X_9;

coefficient of deficit (general fund) – X_{10};

relative index of deviation of the actual amount of financing planned – X_{11};

index expenditure budget – X_{12};

index deviation amount budgeted appointments of the amount needs – X_{13};

index correctness and timeliness of accounting resources (outside the system) – X_{14};

Binding indicators of corresponding to the purposes of spending money on each level of the hierarchy are presented in table 1.

Table 1

Indicators	**Objectives funds administrators at appropriate levels**								
	$Ц_{1.1}$	$Ц_{2.1}$	$Ц_{2.2}$	$Ц_{2.3}$	$Ц_{2.4}$	$Ц_{3.1}$	$Ц_{3.2}$	$Ц_{3.3}$	$Ц_{3.4}$
X_1	+			+					+
X_2	+			+	+				+
X_3	+								+
X_4	+								+
X_5	+	+	+	+	+				
X_6	+							+	
X_7	+	+	+	+	+		+		+
X_8	+	+	+	+	+	+		+	+
X_9	+	+	+	+		+		+	+
X_{10}	+	+	+	+	+	+		+	+
X_{11}	+	+	+	+	+	+		+	+
X_{12}	+	+	+	+	+	+		+	+
X_{13}	+	+	+	+	+	+		+	+

Indicators	Objectives funds administrators at appropriate levels								
	Ц1.1	***Ц2.1***	***Ц2.2***	***Ц2.3***	***Ц2.4***	***Ц3.1***	***Ц3.2***	***Ц3.3***	***Ц3.4***
X_{14}	+					+	+		

The next step in developing a system key indicators is to determine the impact of each indicator to others, was decided with the help of expert assessments, the results are presented in Table 2 (columns 2-15). For the purpose of leveling large spread in estimates of impact of indicators at each other geometric mean was calculated for each indicator by the formula (results are shown in table 2, column 16):

$$\overline{X}_i = \left(\prod_{j=1}^{14} x_j \right)^{\frac{1}{14}},$$

where x_i – j- Expert assessment of the impact indicator X_i other indicators.

Calculation of coefficients the impact carried out by the formula (results are shown in table 2, column 17):

$$k_i = \frac{\overline{X}_i}{\sum_{i=1}^{14} \overline{X}_i}$$

Table 2

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}	X_{13}	X_{14}	Geometric mean	Impact the coefficient
1	2	3	4	5	6	7	8	9	10	11	12	12	14	15	16	17
X_1	1	7	1/3	3	5	5	1	1/3	1/3	1/5	1/3	1/5	1/3	3	2,26	**0,08**
X_2	1/7	1	1/5	1	3	5	3	1	1	1/3	1/3	1/3	1/3	5	1,81	**0,07**
X_3	3	5	1	5	3	1	3	3	1	1	1/5	1/3	1/5	1	2,31	**0,09**
X_4	1/3	1	1/5	1	1	3	1	1/3	1/3	1/5	1/3	1/5	1/3	3	1,02	**0,04**
X_5	1/5	1/3	1/3	1	1	1	3	1/3	1	1/3	1/3	1/3	1/3	5	1,21	**0,04**
X_6	1/5	1/5	1	1/3	1	1	1	1/5	1/5	1/7	1	1/7	1	1	0,70	**0,03**
X_7	1	1/3	1/3	1	1/3	1	1	1/3	1/3	1/5	1	1/5	1	1	0,76	**0,03**
X_8	3	1	1/3	3	3	5	3	1	1	1	1/3	1/3	1/3	5	2,28	**0,08**
X_9	3	1	1	3	1	5	3	1	1	1	1/3	1/3	1/3	5	2,17	**0,08**
X_{10}	5	3	1	5	3	7	5	1	1	1	1	1/3	1	3	3,11	**0,11**
X_{11}	3	3	5	3	3	1	1	3	3	1	1	1/5	1	7	2,93	**0,11**
X_{12}	5	3	3	5	3	7	5	3	3	3	5	1	5	5	3,83	**0,14**
X_{13}	3	3	5	3	3	1	1	3	3	1	1	1/5	1	5	2,27	**0,08**
X_{14}	1/3	1/5	1	1/3	1/5	1	1	1/5	1/5	1/3	1/7	1/5	1/5	1	0,43	**0,02**

The integral indicator for the assessment purposes appropriate level will be determined by the formula:

$$K = \sum_{i=1}^{N_L} X_i \sum_{j=1}^{M_L} k_i,$$

де K – the integral indicator,

X_i – indicator value,

k_i – specific weight,

N – number of indicators,

M – quantity of coefficients influence the relevant indicators;

L– the level at which the assessment.

Conclusion. The proposed group of indicators characterizing the degree of achievement of goals at every level and is the basis of the formation of the internal control and risk management. These indicators provide monitoring of all components of the budget process.

Areas for further research. Planned to define a set of organizational

and technical measures for the functioning of key indicators. creation, implementation and

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Система ключевых показателей эффективности финансового обеспечения Вооружённых Сил Украины

Резюме. На основании проанализированных задач и целей распорядителей средств на каждом уровне управления определен перечень показателей эффективности управления финансовыми ресурсами и предложена система ключевых показателей эффективности финансового обеспечения Вооружённых Сил Украины.

Ключевые слова: распорядитель средств, финансовые ресурсы, экономическая информация, ключевые показатели эффективности.

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Pooling and sharing of defense capabilities of European Union countries to counter threats hybrid

Resume. The view of history of European defense integration, strengthening the defense capabilities of the European Union on the basis of the concept “Pooling and sharing” for effective response to hybrid threats, finding role and place of Ukraine in the process.

Keywords: hybrid threats hybrid conflicts, European Union, NATO, the European Defence Agency, Euro corps, the European Aviation Group, pooling and sharing, the NATO Response Force, joint military units.

Formulation of the problem. Last month the influential European politicians at various levels to discuss plans to strengthen the defense capabilities of the European Union (EU). There are several objective reasons why the EU back to this issue: awareness of new threats that are hybrid in nature: militaristic Russia, Syria, terrorism and uncontrolled migration; adequate hybrid threats, military, technological and industrial capabilities can not be developed solely on the basis of the national state, they must be something more than the sum of the components of national capacities; not all EU countries are members of NATO, which is seen as the foundation of security and counter the continent's hybrid threats.

One of the main directions of strengthening EU defense capabilities The concept of pooling and sharing of defense capabilities of all EU member states.

The article is to study the progress towards strengthening the EU defense capabilities by pooling and sharing of defense capabilities and determine Ukraine's place in the process.

Presenting main material. The first task, which was decided at European basis within the Western European Union (WEU) after the signing in Paris in 1954, was the termination of the occupation regime in West Germany, its remilitarization and inclusion in NATO. In 1987 formed a joint Franco-German brigade, in 1992. Euro corps.

Euro corps took part in military operations in Bosnia, Kosovo, Afghanistan, Macedonia, Congo, Central African Republic, Mali and Somalia. Euro corps operations in Europe were police-type missions. Military type operations were in Africa. In the war in Iraq in 2003 to apply Euro corps Europeans refused. In Libya in 2011. There were no military operation EU and NATO coalition forces led by France, Britain and the US, which confirmed the limitations of "soft power" of the EU when arbitrarily removed or weaken the power element of conflict resolution. This is particularly true in the war in eastern Ukraine, in contact with the dominant and cruel enemy, organized terrorist groups that have a similar approach and arguments considered a sign of weakness and not binding.

Around the same time, ten years of operations in Afghanistan and Iraq generalized Chief of Staff US Army Gen. *Raymond T. Odierno*, who formulated

his vision of a new type of modern army for hybrid conflict. This approach has been effectively implemented by armed forces during the French military operation in Mali in 2013.

Ukraine interesting experience for the establishment and functioning of the European Aviation Group (EAG). Established in 1995 by France and Britain, then the group includes Italy, Germany, Belgium, Spain, the Netherlands, as partners were Norway and Sweden. EAG is independent from NATO or the EU, being "owned" Air Force seven member countries of the permanent headquarters of the 28 people, located at the command center of the UK Royal Air Force.

The qualitative shift began with the adoption at the EU summit at the level of Defence Ministers in Ghent, Belgium in 2010 strategic concept "pooling and sharing" (Pooling and Sharing, P & S). P & S aim is to strengthen the defense capabilities at a lower cost by combining and sharing defense capabilities in the EU. P & S objectives are the following: the priority of military and economic feasibility considerations of national sovereignty; creating a single market for defense products, which is still fragmented, as defense production remains the prerogative of national governments; joint research and development work, procurement of arms and military equipment; sharing of infrastructure of national armed forces (egg, military training) and the establishment of joint units and formations;

Coordination of the goal and objectives of the P & S relies on the European Defence Agency (EDA). EDA implement the decisions of the Council of May 2015 on "a European common basis for combating hybrid threats". To this end, in 2016 held two staff training and stress test for the "development assessment and proposals for responding to the new hybrid threats in terms of the EU".

NATO-EU partnership is another area of combating hybrid threats. Determine the common strategy of NATO and the EU anti-hybrid threats. Yes, the land component of the NRF consists only of European buildings. In the future these forces include a team of units from Ukraine, Poland and Lithuania (LITPOLUKRBRIG) [

Conclusions. Command structure of the EU and European multinational formation and are tested in operations. But this is not enough for effective response to hybrid threats. Unification of military procedures, weapons and equipment leads to the formation of a single market for defense products and can give a synergistic effect. Reform of European markets defense products closely associated with the idea of a European army, a chance Ukrainian defense enterprises to shift from Russia to Europe. Declaring the lack of "soft power" and pointing to Russia as a hybrid threat, the EU accepts that Ukraine can not do without "hard power" in relation to the same threats. The issue of resolving the conflict in eastern Ukraine can ask this: is there any way in which the EU can effectively use "hard power" independently of the US?

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Объединение и совместное использование оборонных возможностей Европейского Союза для реагирования на гибридные угрозы

Резюме. Рассматривается история европейской оборонной интеграции, усиление оборонных возможностей Европейского Союза на основе концепции “Объединение и совместное использование” с целью реагирования на гибридные угрозы, поиск роли и места Украины в этом процессе.

Ключевые слова: гибридные угрозы, гибридные конфликты, Европейский Союз, НАТО, Европейское оборонное агентство, Еврокорпус, Европейская авиационная группа, объединение и совместное использование, силы реагирования НАТО, совместные военные подразделения.

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Features of influence qualifications of the computer programmer on quality software for the single information environment

Resume. The article reveals the impact of issues different classes of programmers and their qualifications for expert assessment of software quality criteria of McCall model. This article disclosed general theoretical aspects of interaction between software and organizational components to develop a single information environment.

Keywords*:* a programmer, software level of efficiency, quality software, a single information environment.

Statement of the problem. The process of reforming the Armed Forces of Ukraine requires considerable human and material resources, and the achievement of the desired effect fully depends on identifying ways of development of information technologies. Today for the Ministry of defence of Ukraine in this sphere are the priority tasks identified by the draft Strategic defence Bulletin of Ukraine. The document provides for the introduction of automated systems of control of troops (forces) with the aim of creating a Single automated system of control of the Armed Forces of Ukraine, capable to work together with similar systems of management of the multinational force. It also provides for automation of logistic processes to ensure the performance of tasks on creation of automated system of management accounting and movement of material and technical means of the Armed Forces of Ukraine.

These objectives determine the modern direction of development of information technologies in the military sphere. As part of this problematic area is the process of creating complex information systems and combining them into a single information environment (SIE). The formation of such an environment requires the interaction of four components: program, technical, network and organizational. Let us dwell on the characteristics of the mutual influence of two components – program and organizational. Under their cooperation will be to understand the dependence of quality software (SW) on the skills of programmers during the development of the information system.

A key player in the last phase of creating an information system should be a specific authorized person, a member of the selection Committee – the expert. Such experts should assess the quality of the software and make decision regarding determination of the suitability of information systems for making it into service. Justification objective results of work of experts on the evaluation of SW quality during the formation of the SIE were carried out earlier in work [1].

A quality assessment SW can predict and manage the quality of software components. Thus, the task of identifying the mutual influence and interaction between software and organizational component to ensure quality is important.

The extent of the problem. Reliability SW lit in [2-4] and standards (GOST 2862-94 and 2860-94). Software quality is an essential component of SW reliability. The concept of software quality illuminated in scientific works [1, 5] and the standard [6]. The features most common models for assessing the quality of the SW is devoted to work [7, 8]. Expert assessments have been disclosed in many

scientific sources by different authors, in particular with Professor Voronin [9]. Regarding the process of expert estimation of SW quality, in scientific work [8], it is described taking into account the scope of competence of experts and provided that weights each of the criteria experts. In [1] the task of determining the quality SW was asked to decide on the basis of the method of processing of expert assessments multi criteria problems. An attempt at classification of programmers and reliability models has been presented in early works [10-12].

The purpose of this article is to determine the effect of errors programmers on the expert assessments of the Ministry of defence of Ukraine according to the criteria of SW quality in the formation of the SIE.

Presentation of the basic material.

1. *Model quality McCall.* According to this model [7] quality characteristics are divided into three groups: factors that describe the SW from the perspective of the user and set requirements; criteria that describe the position of software developer and set as a goal; metric used to quantify and describe measurement quality. In Table 1 are twenty criteria of quality SW, which define the dependence of errors in programs. [1]

Table 1

The effect of program errors on the criteria (metrics) SW quality model McCall

№	Name of quality criteria McCall	Dependence on errors in programs
1	The convenience of checking for compliance with standards	Yes
2	Precision control and computing	Yes
3	The degree of standardized interfaces	Yes
4	Functional completeness	Yes
5	The homogeneity of the used design rules and documentation	No
6	The degree of standardized data formats	Yes
7	The error tolerance	Yes
8	Efficiency	Yes
9	Extensibility	Yes
10	The breadth of areas of potential use	No
11	Independence from the hardware platform	No
12	Completeness of errors and other events logging	Yes
13	Modularity	No
14	Experience	Yes
15	Protection	Yes
16	Self documenting	Yes
17	Easy operation	Yes
18	Independence from the software platform	No
19	The possibility of correlating the project with the requirements	No
20	The convenience of learning	No

2. *Expert assessments*. One of the main methods of determining the quality SW for the calculation of the generalized indicators of the quality SW is expert. For each of the quality criteria were the grades. The rating is determined collectively heuristic based on the experience of the implementation of the project of Informatization of the Unified system of management the administrative processes of the Armed Forces of Ukraine. Due to the mathematical model of processing of expert assessments of the quality SW of SIE determined the initial weights of experts taking into account the heterogeneity of the composition of experts. At the same time, significant differences were compensated by the method of Professor A. M. Voronin [1,9].

In the calculations took into account the weight indicators of quality criteria and possible expert assessments on a ten point scale. The result of the iterative procedure was obtained revised estimates of the quality criteria of McCall (Fig.1) taking into account the heterogeneity in the composition of experts.

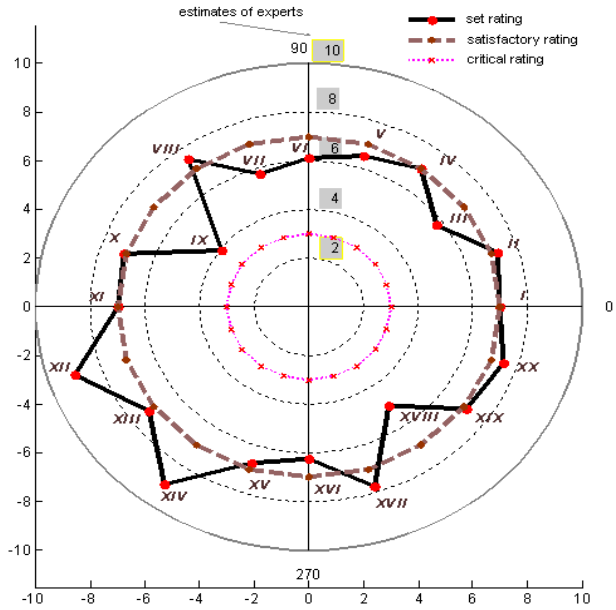

Fig.1. The angular histogram FOR 20 quality criteria of McCall

The graph in the polar coordinate system simultaneously presents three histograms. Solid line presents a certain score of SW, then there is a generalized average rating of experts. The outer circle indicates the maximum score {10...10} for all criteria – the perfect state of the system. In the middle of some the equivalent of 20-gon, estimation of {5...5} (indicated by dashes) – indicates a conditionally satisfactory rating on all criteria of McCall, i.e., the commanded state of quality SW in which existing errors in the pancreas do not affect the performance of the program. Internal 20-gon (marked with dots), conventionally, shows the ultimate state of quality SW – a critical assessment of {3...3} according to the criteria of McCall. Will accept conditions that no one of the vectors of histogram SW quality should not be less than the value in modulus than the value of {3...3}. The program after the elimination of errors is taken into operation, if the majority of criteria will be evaluated by experts not below {5...5}.

It should be noted that this convolution imposed certain weights relative to the weight of the proposed factors. That is, are dealing with normalized values. For SW of SIE, the difference of the average values of the first and last iterations (detailed calculations are given in the work [1]) Δa^h =|6,75-7,11|=0,36, that shows the level of adequacy of the overall assessment of most experts.

Based on the fact that the polar coordinate system is a nonlinear dependence, to build a set of criteria can be in the form of a bar graph (Fig.2) with a height equal to the value of the expert assessment together with consideration of the weight of criterion. Square integrand curve may be determined by conventional additive reduction $x_i(d_i)=\sum k_i$.

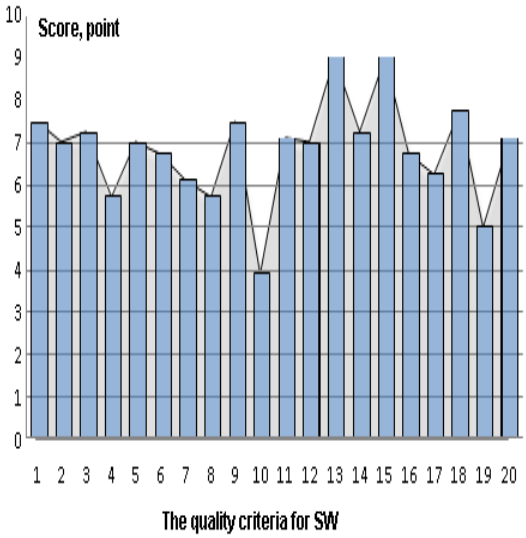

Fig.2. Column histogram of quality assurance by 20 criteria of McCall.

3. Classes programmers. Errors SW. Formally, consider the programmer's activity, which directly affects the quality SW and is the subject of the process of SW development. Based on previously proposed criteria qualification (separation of programmers into three classes) [12], focus on the errors in the program. As mentioned in [10], the intensity of making mistakes when correcting SW for the programmer 1-st class is $\lambda_{внес.}$= 0,1; for 2-nd class is $\lambda_{внес.}$= 0,3and for 3-d class is $\lambda_{внес.}$= 0,7.

Let us consider the time dependence of the number of software errors since the start of work SW on three different programmers qualifications (Fig. 3). Operate will the statistics resulting from the modeling of software reliability [11]. Accordingly, given averaged over 10 iterations and choosing the accurate deterministic curve [13] it is possible to understand patterns of occurrence of the errors and actions of the programmer to correct them:

- more programmers the smaller decline curve;

- programmers with low skills can not fix complex program to set level because they make more errors than correct;

- determines the number of programs programmers.

Assume that, theoretically, there are programs which eliminated all errors, then have them there 0%. Under a given level of efficiency SW understand the condition of SW with a certain number of errors. These errors are not substantial and do not affect the work as a whole. In this case, the specified level of performance corresponds to the value 0%+*d*. We assume that the errors in SW can be more than 100%. To explain this statement it is possible that at the beginning of the work with SW we have 100% hidden errors in the program. But with the beginning work of the programmer (see pattern 2), when corrected SW making a mistake with a certain ratio. In this case, the number of errors increases by the amount *delta(i),* when *i*=1, 2, 3 – class programmers. Then, the number of errors for the programmer 1-st class is 100% + *delta1*; 2-nd class is 100% + *delta2*; 3-d class is 100% + *delta3*.The program can be sufficiently corrected, if the errors in it will not exceed the limit of working capacity. On the basis of economic or time constraints you can define restrictions on disability SW due to setting the variable linear function y=x. In Fig.3 shows that the intensity of error correction depends on the level of assurance of its quality.

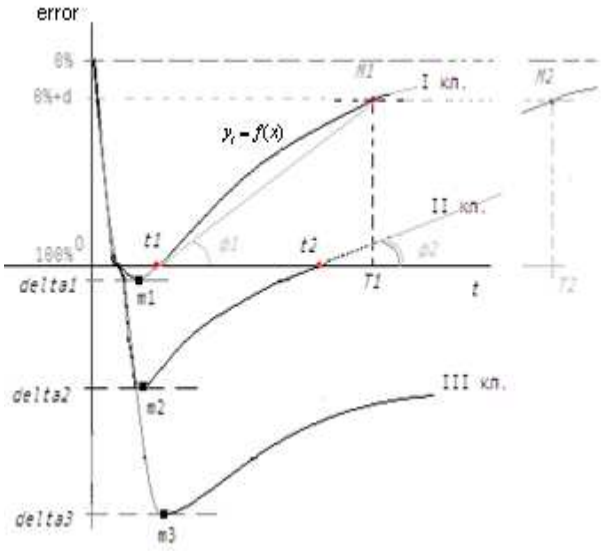

Fig.3. The number of errors made since the beginning of the work SW programmers of different classes

4. The quality and the errors in the SW. Each of the twenty factors should be brought into compliance with the vision from the point of view of security and safety, as well as errors that may be affecting their level. The analysis of 20 quality SW criteria showed that 13 of them depend on errors in the programs and, accordingly, they may be impacted by programmers.

Conclusions. The study identified possible ways influences of errors programmers on quality SW on quality criteria in the formation of the EIS. Based on the model using the method of search of the average values of expert evaluations of quality SW was proposed angular histogram of the quality SW of the overall mean scores of experts on 20 criteria of McCall. Also, for the three qualification categories of programmers was investigated curve of efficiency programs based on the number of errors made by programmers.

In the result of conducted research it became clear that by employing a predictable selection of the programmers, you can influence the quality criteria of SW. The use of certain limitations during the peer acceptance SW, may become a justification for reduced requirements (including costs) for programmers to create SW and vice versa. It was determined that errors affect most of the metrics of SW - the expert identified 13 of the 20 criteria by SW quality model McCall, which depend on the errors of programmers. The analysis showed the essence of nature as the SW errors and actions of programmers.

Further research should be devoted to the analysis and definition of the nature of the regression dependence curve model for SW quality of single information environment.

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Особенности влияния квалификации программистов на качество программного обеспечения единой информационной среды

Резюме. Статья раскрывает проблемные вопросы влияния деятельности программистов различных классов и их квалификационных уровней на экспертную оценку качества программного обеспечения по критериям МакКола. Раскрыты общие теоретические аспекты взаимодействия программной и организационной компонент для формирования единой информационной среды.

Ключевые слова*:* программист, уровень работоспособности программы, качество программного обеспечения, единая информационная среда.

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The implementation of gender policy in the Armed Forces of Ukraine

Resume. Consider the questions of the implementation of gender equality in the Armed Forces of Ukraine. Reveal the essence of gender policy in the Armed Forces of Ukraine and the main motivational factors that influence women's decision to enter military service. Consider the actions of the military authorities aimed at implementation of the state gender policy to ensure equal rights of soldiers-women and soldiers-men.

Keywords: gender politics, gender approach, soldiers-women.

Statement of the problem. The vast majority of modern armies have long used gender approach as a proven strategy to increase its combat potential on the humanitarian basis that assumes the realization of gender equality, equitable and sustainable development of the individual soldier regardless of gender. In this context, the army of Ukraine is not an exception.

Today, the transition of the Ukrainian army on contract system of recruitment is no longer possible to imagine without the involvement of women for military service. Therefore, the scientific analysis of the problems women in the army, the search for solutions is becoming increasingly important and necessary for effective reform of the army of the organism [2, p. 116].

The purpose of this article is to analyze the activities of the military authorities of the Armed Forces of Ukraine, aimed at overcoming manifestations of gender incompetence, and recognition of the values and positive benefits of the introduction of women's views on the issue of women serving in the armed forces.

Presentation of the basic material. Gender mainstreaming in the Armed Forces of Ukraine is focused, systematic, comprehensive management activities of the Ministry of defence of Ukraine and the General staff and other military authorities about the reduction of troops (forces) in the military structure of the modern type, which combines a gender sensitive organizational culture and gender-comfortable army environment [1, p. 180].

Gender policy – state, public activity, aimed at the establishment of the equality of men and women in all spheres of life.

The main directions of gender development in Ukraine are defined in the Constitution. Article 24 of the Constitution States that every citizen of the society as male or female has the fullness of the socio-economic, political and personal rights and freedoms [3].

Gender issues refers to the social capabilities of each gender in education, professional activities, access to power, family roles, and reproductive behaviour is one of the basic dimensions of the social structure of society. The social component in the system of socio-political and economic priorities of Ukraine in today is gaining weight one of the dominant national interests,

because the most important object of national security, without a doubt, are the rights and freedoms of the citizen.

In recent years, gender transformation is gradually introduced into activities of the Ministry of defence of Ukraine and other military authorities. When reducing the total number of servicemen in Ukraine there is a tendency to increase the number of women in all military positions.

The increase in the number of female officers, that is, those that are serving in leadership positions, is one of the basic indicators of systematic implementation of gender policy in the activities of Armed Forces of Ukraine.

Implemented right the female military personnel in relation to career choices and opportunities to realize themselves in military service in the Armed Forces of Ukraine in accordance with the existing professional level and education. The peculiarity of today is that female soldiers studied martial specialty, at first sight is not peculiar to women: a pilot, a Navigator, a sailor, a paratrooper, machine gunner, Grenadier, Rifleman, planters, operator and the like. They also realize themselves in the service and to traditionally "feminine" military positions of lawyers, doctors, communicators, political scientists, psychologists, culture experts, financiers, translators. So, found the use of their knowledge, skills and abilities, 41% of the female military personnel with a technical background, 23% in Humanities, 16% – economic and 20% on the other [4, p. 28].

It is prohibited to assign women only for positions which involve working with toxic substances, explosives, arms and means of radiation, chemical, biological protection in all positions on submarines and surface ships, in military units of special purpose, office, on which work is connected with direct firefighting, diving operations and some others.

It is generally thought that the task of men "to defend the country and protect the weak – women, children". Most of the arguments based on the fact that women are physically weaker and do not act effectively in a combat situation (gender stereotypes). Gender stereotypes are a view in society about the social roles of men and women, their psychological and physiological characteristics. But this view is mistaken, because the objective data of various studies argue that the physical achievements, which were a record for men 10-20 years ago, today are accessible to women [5]. Therefore, assuming equal training and equal treatment of women and men, they, as well, effective in their duties as men. Moreover, not every man is a "good" soldier. Given the changing nature of modern warfare, the number of muscles does not matter, therefore, gender should not be a major factor in determining the roles of men and women in military structures [6]. Given that in the field of defence with a significant advantage dominated by men and male stereotypes in a different way applied gender approaches will be mean the recognition of the values and positive benefits of the introduction of women's views on the issue of women serving in the armed forces [2].

According to commanders of military units and divisions is the soldiers-women are most carefully and diligently perform their duties. The

main positive aspects in military service women, according to estimates of their colleagues are: large efficiency, internal discipline, responsible for their work. Their presence greatly alleviates the moral-psychological atmosphere in military collectives, forces of commanders and superiors to be more restrained and most importantly – significantly enhanced the culture of relationships between servicemen in the community.

The results show that among the main reasons that motivate the woman to the election of military service in the Armed Forces of Ukraine is economic reasons – attracts satisfactory cash content. Important is the possibility of self-realization in the military. Along with this, military service provides an opportunity for women to specialty education for the future civilian life after retirement from the army: a sense of social security, regular income, clothing, health care, guaranteed paid vacation – all this contributes to the desire of women involved in the Armed Forces. A significant role in the desire of women to enter military service plays such a factor as an opportunity to arrange a personal life, to find friends, to continue the family tradition.

However, it should be noted that today not all possible in the Armed Forces of Ukraine on securing the rights of women. First of all, individual commanders (chiefs) are dominated by mood gender nihilism; they do not want to deal with the problems of women, to provide opportunities to enhance their professional skills, education, intellectual development and career advancement. Of course, you can introduce the mechanisms and norms of gender transformation in the defence sector, however, this does not always approve of how commanders and subordinate soldiers. The stereotypes are difficult to break new, and in some places imposed rules of conduct. Therefore, the improvement of both legislation and the activities of military control bodies, including the direct work of the officials on the ground in this direction should be gradual and balanced.

To overcome these and other manifestations of gender incompetence of the personnel of bodies of military management of Armed Forces of Ukraine implemented a set of activities, outreach and educational areas.

Gender policy in the Armed Forces of Ukraine was intensified thanks to the activity of bodies of military management in organizational aspect. In the structure of the Ministry of defence and General staff of the Armed Forces of Ukraine entered posts of the responsible persons (senior officer and chief specialist, respectively), which were trained in an intensive course “Logical framework approach to the implementation of the gender policy”.

The next step to ensure that activity was the creation of an expert working group on gender issues, composed of representatives of the structural subdivisions of the Ministry of defence and General staff of the Armed Forces of Ukraine.

The Ministry of defence of Ukraine in a relatively short period of time planned, organized and carried out a number of activities in different areas of activities aimed at implementation of the state gender policy on ensuring

equal rights and opportunities of servicemen-women and men.

The Ministry of defence of Ukraine comes to understand that soon the transition from targeted individual measures to long-term prospects aggressively moving towards incorporating gender mainstreaming in all spheres of its activities. Therefore, the change of the "concept for the advancement of women," argues the concept of gender in the development of any personality, progress and justice. It is not aimed at action in the system of life of one sex only, change of its qualitative characteristics, acquisition of relevant new traits, creating special conditions and opportunities, and to overcome gender inequality.

Conclusions and Outlook for further research. To carry out planned activities, if they implemented comprehensively, will provide an opportunity to significantly accelerate the implementation of gender equality in the army and change the nature of this medium from a purely masculine in gender exactly. Directly in the military this will provide an opportunity to women on equal terms with men to do the important contribution of General abilities and efficiency of performing assigned tasks.

Today in most countries of the world no doubt question that provided the same training and the same attitude towards women, military women as effectively as the military-men are able to perform professional duties, stipulated by the specificity of military service. Despite the fact that in the sphere of defence by a wide margin dominated by men and masculine stereotypes, gender mainstreaming would mean the recognition of the values of social justice and use of social and professional potential of women in the process of strengthening the combat readiness of the Armed Forces.

The prospect of **further research** is to analyze and study the development of gender policy in the Armed Forces of Ukraine.

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Реализация гендерной политики в Вооружённых Силах Украины

Резюме. Рассматриваются вопросы внедрения гендерного подхода в Вооружённые Силы Украины. Раскрывается сущность гендерной политики в Вооружённых Силах Украины и основные мотивационные факторы, влияющие на решение женщин поступать на военную службу. Рассматриваются меры органов военного управления, направленные на внедрение государственной гендерной политики по обеспечению равных прав и возможностей мужчин и женщин-военнослужащих.

Ключевые слова: гендерная политика, гендерный подход, женщины-военнослужащие.

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- **problem statement** in general view and its connection with important scientific or practical tasks;
- **analysis of recent researches and publications** which initiated solving this problem and relied upon by, the allocation unsolved aspects of general problem which the article is devoted;
- **the purpose of the article** (setting tasks);
- a statement of **basic research material** with full justification of scientific results;
- **conclusions** and prospects for further research development in this direction;
- the **annotation and key words** are placed after the title of the article.

The article should follow the conventional terminology. All abbreviations and new terms must be disclosed by the author.

The title, list of authors, title, abstract (no more than 40 words), keywords (7 words) should be prepared in three languages: Ukrainian, Russian and English.

The size of the article including tables, figures and references should not exceed 10 pages A4.

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Матрична модель OLAP-систем (*font size 14 PT bold*)
Матричная модель OLAP-систем
Matrix model of OLAP-systems

Резюме. Розглянуті особливості матричних моделей … (***кегль 12 пт***)
Ключові слова: модель, OLAP система, інформаційні технології.
Резюме.
Ключевые слова:
Resume.
Keywords

Statement of the problem. Numerous research works aimed at solving the problems of decrease in power consumption of pneumatic conveying systems. ...

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1 spacing

$$\sum_{p=1}^{N^2} X_{n_k}^{pk}$$

1 spacing

where $\sum$ *- Times New Roman 18 font;*
X *- Times New Roman 14 font;*
N ; pk; p=1; n *- Times New Roman 10 font;*
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