

INFORMATION-MILITARY SECURITY IS A COMPONENT OF STATE SECURITY

**Volodymyr Khoroshko, National Aviation University, Doctor in Technical Sciences, Professor
Ruslan Hryshchuk, National Aviation University, Doctor of Engineering Science, Full Professor
Nikolay Brailovskyi, Taras Shevchenko National University of Kyiv, PhD in Engineering Science, Associate Professor
Mariia Kapustian, Khmelnytskyi National University Computer Engineering and Information Systems Department, PhD in Engineering Science, Assistant professor**

ABSTRACT: In modern conditions, the nature of the information-military struggle has changed significantly - it is increasingly taking on the characteristics of a hybrid war. The emphasis of the military struggle is shifting towards the practical implementation of information technologies. At the same time, informational and psychological operations, actions and actions are gaining more and more importance in achieving political and military goals. In the article, using the example of Ukraine, the issue of the distribution of sources of information and military danger according to their origin and internal nature was considered, specific manifestations of information and military danger for the country from the side of the aggressor state were given, general reasons for ensuring the national security of the country were given, and principles were formulated that have been laid in the basis of the activity of this system. The proposed functional scheme for ensuring the information and military security of the country. General recommendations on confrontation in the information war have been formed.

KEYWORDS: *national security, information warfare, information warfare, the concept of security, ensuring the security of the state.*

Introduction

The existence and development of modern states is closely intertwined with geopolitical and geostrategic conditions and largely depends on international relations. At the same time, even more importance is given to ensuring national security - the state of protection of the vital interests of the individual, society and the state from internal and external threats [1].

Among the many factors affecting the formation of the foreign and domestic policy of states, the determining role belongs to national interests. Being realized at all levels of social life, the needs of the country's population in the preservation and multiplication of national values and national wealth, in economic prosperity and political stability of society, national interests are reflected in the formulation and achievement of national goals. Thus, national interests and actions related to their satisfaction are connected. In international relations, not only such actions, but also their prerequisites or intentions regarding their implementation are objects of close attention, careful study and comprehensive assessment. This is particularly typical for Europe.

The experience of Ukraine clearly shows that true state independence exists only under the condition of reliable provision of national security.

The priority national interests of Ukraine, the conditions and ways of their reliable protection from existing and potential threats are defined in the national security strategy of Ukraine [1,2,3].

Ensuring state sovereignty, territorial integrity and inviolability of borders plays a pivotal role for the national interests of Ukraine. It is ensuring the security of Ukraine as an important component of its national security as a whole that is the main task.

It should be noted that in addition to military security, the country's security includes information security, which is both a component of military security and an independent part of state security. [4].

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

The transformation of Ukraine into an independent subject of geopolitics and international relations made the country face the problems of finding its place and reliable movement guidelines in the ambiguous military and political situation that has developed in the world and in the European region as a result of the collapse of the USSR, changes in the geostrategic interests and political orientations of most states of Central and Eastern Europe. Under these conditions, as well as as a result of fundamental democratic transformations in the state and society of Ukraine, security, both military and informational, is a matter of foreign and domestic policy, economy, legislative and regulatory framework of the state, etc.

Fundamental socio-political changes that took place in Central and Eastern Europe at the end of the 20th century led to the formation of a new structure of geopolitical space in this part of the continent. International relations at all levels - global, regional and bilateral have acquired fundamentally new qualities. At the same time, a complex and multidimensional foreign policy situation has developed around Ukraine.

The formation of the new geopolitical environment of Ukraine is influenced by two opposite trends: disintegration and integration.

The disintegration process resulted in the disintegration of several states in the region (USSR, Yugoslavia, Czechoslovakia). Moreover, this process spread to the internal disintegration of parts of these states (Georgia, Moldova, Russia, etc.).

A dangerous feature of disintegration processes is their tendency to take the form of an armed conflict. Only the disintegration of Czechoslovakia had a civilized form, other countries that ended their existence could not avoid the outbreak of armed violence, and the war in Yugoslavia became a clear example of what destructive forms disintegration can take even in a fairly civilized and generally developed country. The search for an effective solution to the problem of halting or civilizing the disintegration processes is of utmost importance, because the continuation of these processes can restore powerful anti-democratic forces that are capable of creating new autocratic supranational structures.

As for integration processes, they have two rather clearly defined spheres of action. First of all, it is Western Europe, which actually turned into a single geopolitical space through the European Union.

The second sphere consists of some countries of Eastern Europe and Central Asia, which are part of the interstate association of the former republics of the USSR - the Commonwealth of Independent States (CIS).

Each of these spheres differs in the degree of internal integration, the nature of internal contradictions, economic potential, and the level of socio-political stability. Western European integration has the best parameters and is a model for other regions of the continent. Rather contradictory processes are taking place in the CIS - from the almost complete unification of Belarus and Russia to a certain distancing of the states of Central Asia.

Against such a general geopolitical backdrop, Ukraine has been developing as a sovereign European state for 30 years. Taking into consideration the world experience, it can be argued that this development will be successful only under the conditions of reliable provision of national, including military and information security. At the same time, the security of Ukraine is an integral part of international security both at the global and regional levels.

Main part

It should be noted that during the thirty-year period of its independence, Ukraine, as a subject of international security and cooperation, has done a lot to assert a positive role in the field of European and regional security [5]:

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

- clearly defined the main principles of its foreign policy, focused on maintaining peace and stability in Europe;
- strengthened its authority as a member of many universal international organizations, in the founding of which it participated, actively cooperates with other states in peacekeeping activities under the auspices of the UN;
- became a fully-pledged member of the OSCE and the Council of Europe, established fruitful cooperation with the European Union;
- signed and ratified the agreement on its nuclear disarmament, joined the Treaty on the Non-Proliferation of Nuclear Weapons, etc.

This is far from complete list, as well as Ukraine's considered and moderate policy regarding manifestations of instability and conflicts in the immediate geopolitical environment (Russia's military aggression against Moldova, Georgia and Ukraine) contribute to Ukraine's international authority and strengthening of trust in it on the part of the world community.

However, the modern world remains controversial, and the most important thing for most states is informational and military danger.

In any case, the danger of the state has its own sources - existing or potential contradictions, for the solution of which military force can be applied. These contradictions can be external or internal. The basis for the emergence of these contradictions is the incompatible interests of individual states or social groups of the population in the sphere of political, economic, religious, national-ethnic and other relations, and their development is a consequence of the persistent actions of the opposing party (in this case, Russia) in the direction of achieving its goal (satisfaction of one's interests), despite the disagreement and resistance of the other party [6,7].

From the viewpoint of Ukraine, the sources of informational and military danger can be divided into three groups according to their origin and internal nature [4,6]:

The first group is sources of external (primarily from Russia) informational and military danger. This group includes the aspects as follow:

- existence of territorial claims to Ukraine;
- interest in changing the external and internal political course of Ukraine to one's advantage;
- interest in weakening the political, economic, and military role of Ukraine in the region, on the continent, and in the world in the interests of its dominance;
- a positive attitude and support for the actions of separatist forces in Ukraine and for the exacerbation of inter-ethnic and inter-confessional conflicts in Ukraine on the part of Russia;
- Russia's interest in establishing control over strategic objects and communications of Ukraine;
- the presence of significant military groups of Russia near the borders of Ukraine.

The second group consists of the sources that are formed by objective external factors and conditions that operate and exist in the neighboring states (primarily in Russia and Belarus), but have direct signs of both military danger and informational danger of Ukraine [3,6, 8] :

- steady growth of expenses for informational and military aggression;
- availability of powerful informational and military potential;
- unsettled legal issues of interstate relations with Ukraine.

The third group includes sources of internal origin, which in one way or another affect the level of informational and military danger for Ukraine [9,10]:

- unsatisfactory state of Ukraine's economy;
- unsatisfactory financing of Ukraine's own defense needs from the state budget;
- certain manifestations of socio-political instability in society.

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

The initial, initiating role is played by the factors of the first group, as they determine Russia's aggressive intentions and actions towards Ukraine. The factors of the second and third groups create certain prerequisites for the realization of their military danger for Ukraine.

Therefore, it is obvious that the sources of informational and military danger for Ukraine should be considered only as a whole, since there is a close relationship between them.

Specific manifestations of informational and military danger for Ukraine from the aggressor state can be as follow [4,6,11]:

- conducting hostile propaganda against Ukraine, inciting international conflicts, supporting separatist movements;
- interference in the internal affairs of Ukraine;
- submission of territorial claims to Ukraine;
- direct preparation for war against Ukraine, and the seizure of Crimea and war in Donbas, as well as actions aimed at undermining its sovereignty, violation of territorial integrity, etc.

The system of providing information and military security is an important subsystem of the general system of providing national security of Ukraine.

The functioning of the information and military security system of Ukraine is related to both external and internal spheres of state activity. The external aspect consists in the stabilization of the military-political situation in the region and the world at a reduced level of informational-military danger for Ukraine. The internal sphere covers issues related to the solution of socio-economic problems and maintaining the state's defense capability at an appropriate level.

It should be noted that the state and political security of the country consists of the aspects as follow [1,2,10,11]:

- the protection of the country's constitution, state and political system from attempts to liquidate or change them by force;
- ensuring the sovereignty and territorial integrity of the state, the inviolability of its borders, protection of internal and external interests;
- the protection of constitutional rights, freedoms and legitimate interests of citizens of the state and their associations.

For Ukraine, the main sphere of state and political security is the creation of domestic, regional, and global conditions for peaceful existence, the work of the Ukrainian people, and the sustainable democratic development of society. This includes, in particular, the end of the war in Donbas and the liberation of Crimea, active opposition to military threats, the exclusion of political isolation of Ukraine and the dictates of other states. Depending on the implementation mechanisms, state and political security can be divided into political and military.

Social-economic, national-cultural, informational, ecological and other types of national security also have military aspects.

Economic security is the foundation of Ukraine's national security. It is under the conditions of sustainable economic security that all our tasks of ensuring national security can be solved, that is, the creation of the necessary conditions for the stability of the development of the economic, socio-political, informational, ecological, demographic, scientific and intellectual foundations of society. On the other hand, real economic security exists only under conditions of reliable protection of Ukraine's national interests from any forceful pressure and encroachments from the use of military force. Therefore, among the main prerequisites of Ukraine's national security, its informational and military security should be considered alongside economic security, and under certain circumstances, informational and military security may take priority.

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

Three basic concepts should be used to ensure the information and military security of Ukraine as a nuclear-free state.

First, it is the concept of a military-political partnership based on a developed economy, a stable social sphere, and a well-founded information-military policy.

Secondly, it is the concept of defensive deterrence, according to which, within the limits of defensive sufficiency, a military organization of the state is created, which is capable of resisting a military conflict and causing unacceptable damage to the aggressor.

Thirdly, it is the concept of repelling aggression, which is based on the mobilization of all forces, means and resources of the country to oppose the aggressor.

The activities of all components of the information and military security system of Ukraine are concentrated on these three directions.

Taking into account the general reasons for ensuring the national security of Ukraine, it is possible to formulate the principles that should be the basis of the activity of this system [1,2,3]:

- the rule of law;
- the priority of contractual means in the resolution of interstate conflicts with the sufficiency of national defense;
- not harming the security of other states;
- adequacy of countering real threats;
- counteracting influences on individual units of the information system of the state;
- prevention of destruction or damage of state resources;
- countering the impact on the personnel of information and telecommunication systems with the use of software tools for keeping information in the subconscious or deterioration of human health;
- the balance of the interests of man, society and the state, their mutual responsibility in the field of ensuring information and military security;
- adequacy of measures against terrorist actions of the opposing party;
- openness to democratic civil control (except for cases in which there is a caveat in the legislation).

Taking into account the abovementioned, the functional scheme of ensuring the information and military security of Ukraine in its general form is shown in Fig. 1.

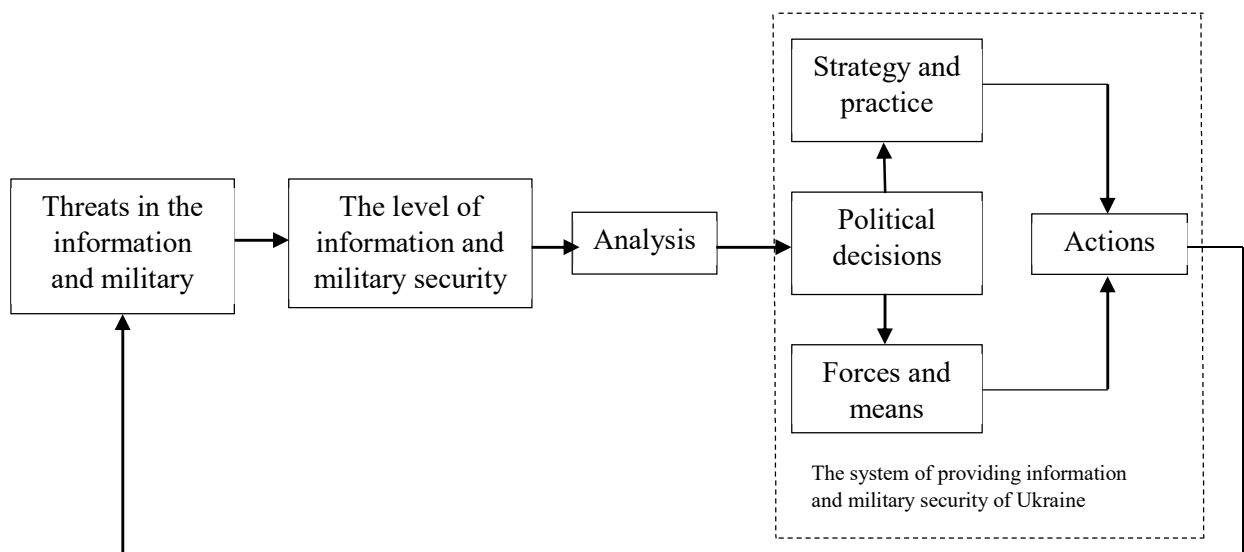


Fig. 1 Functional diagram of information and military security of Ukraine

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

The main content of providing information and military security is [4,6,12]

In peacetime:

- assessment and forecasting of the level of military security and military threats;
- implementation of effective and adequate measures aimed at preventing military conflicts in the foreign political sphere and within the state;
- preparation of the Armed Forces and other military formations to perform defense tasks and planning their use;
- protection of the state border, airspace, underwater environment and maritime economic zone of Ukraine;
- countering the implementation of destructive ideological influence on people, society and the state, manipulation of public opinion in order to create political tension and a state close to chaos;
- countering the formation of a negative image of Ukraine in the international arena and the destabilization of political relations between parties, associations and movements with the aim of inciting conflicts, stimulating mistrust, exacerbating enmity and the struggle for power;
- prevention of provocation of social, political, national, ethnic and religious clashes, creation or strengthening of oppositional and separatist groups and movements;
- a particularly necessary countermeasure against undermining the morale of the population and, as a result, the reduction of defense capability and combat potential;
- military and patriotic education of citizens of Ukraine;
- development of the defense-industrial complex, ensuring the mobilization readiness of the economy, state authorities, and the population to fulfill the tasks of territorial and civil defense;
- development of international military cooperation, active participation in peacekeeping activities under the auspices of international security organizations.

During the period of repelling armed aggression, the content of the actions consists of two separate directions, where the first is military opposition to the aggressor, and the second is informational opposition.

Military countermeasures include: [4,13,14,15]

- timely introduction of martial law or state of emergency in Ukraine or in some of its territories, implementation of full or partial deployment of the Armed Forces, bringing them and other military formations to readiness for the performance of tasks to repel armed aggression;
- transfer of the national economy, transport and communications enterprises to work under martial law;
- deployment in accordance with wartime requirements of the system of strategic management of the Armed Forces and other military formations, systems of operational, rear, technical and medical support, forces and means of territorial and civil defense;
- concentration of efforts of state authorities and military administration bodies, public organizations and citizens on the fulfillment of state defense tasks;
- repelling an armed attack, striking the aggressor's troops and the most important object with the aim of forcing him to refuse further hostilities;
- full use of the capabilities of international security organizations to stop military aggression, localize it and prevent it from turning into a full-scale war.

With regard to the information confrontation with the aggressor (in this case, Russia), Ukraine has already gained much of experience.

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

In the course of countering the aggressive actions of the enemy, general recommendations were formed regarding confrontation in the information war with Russia, namely: [4,9,16,17,18,19]:

- strengthening state control over the information space of Ukraine;
- coordinating the information impact on vulnerable elements of the aggressor's information system in a quicker manner;
- developing methods and means of countering the aggressor's information actions to reduce the sphere of his influence;
- applying a complex approach when forming an information war strategy, that is, to combine purely informational methods of influence with military, political, economic, etc.

It should be noted that information and psychological operations (IPO) in the southeast of Ukraine should be carried out in three directions:

- the first - the zone of operations of the joint forces (for the formation of opinions about the legality of the decisions and plans of the military and political leadership of Ukraine);
- the second - the internal territory of Ukraine (to demonstrate the confidence of the actions of the Ukrainian leadership and to form views among the population in support of the decisions of the military and political leadership of Ukraine);
- the third - foreign countries, in particular Russia (to create informational conditions for a positive perception of Ukraine's politics).

According to the first direction, IPO objects (especially in the Anti-Terrorist Operation Zone) are: [4,12]

- the population living in the Anti-Terrorist Operation Zone;
- a special composition of the forces involved in conducting the Anti-Terrorist Operation;
- illegal armed formations and personnel of the armed forces of the Russian Federation, which are in the Anti-Terrorist Operation Zone.

It should be taken into account that the population living in the Anti-Terrorist Operation Zone is subjected to double information physiological influence (IPI) - both from terrorists and Russia, and from Ukraine. Therefore, during IPO, the entire range of types, methods, methods and techniques of IPO are used, relying on the wide use of psychogenic factors.

The IPI objects in the second direction (internal territory of Ukraine) are as follow [17,18]:

- population of Ukraine;
- temporarily displaced persons;

The IPI should target the population of Ukraine in order to:

- support the patriotic mood in society;
- support and approve military operations against illegal armed formations and Russian mercenaries;
- clarify the need for various measures to limit and strengthen control;
- condemn and criticize the actions of illegal armed groups and Russians in relation to Ukraine;
- do counter-propaganda, namely the implementation of measures to counter attempts to manipulate public consciousness, in particular by spreading unreliable, incomplete or biased information about the social-political and socio-economic situation in the state, primarily in the Donetsk and Luhansk regions.

Special attention should be paid to temporarily displaced persons. IPI for this population category should be carried out by adapting them to new living conditions, namely:

- provision of housing (temporary or permanent);
- provision of various social benefits;

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

- involvement in social work.

IPI for the main composition of the forces, which is preparing to participate in the Joint Forces Operation, should be carried out in the directions of moral and psychological support of combat operations. At the same time, the main attention should be paid to psychological readiness to participate in combat operations.

At the level of the world community, it is necessary to ensure Ukraine's support for the preservation of territorial integrity, the implementation of all agreements regarding the peaceful settlement of the military confrontation by all participants in the conflict, including Russia, and in the event of an escalation of the situation on the part of illegal military formations, to ensure the legitimization of hostilities.

IPI on the population and military personnel of foreign states should be carried out in the following directions [17]:

- clarification of the goals of foreign policy and actions to establish peace in the southeast of Ukraine;
- to inform the world community, influential foreign political, governmental, business and cultural circles, as well as foreign mass media about actions to establish peace in the southeast of Ukraine;
- discrediting the military and political leadership of the Russian Federation.

In addition, it is recommended to work to support anti-war and anti-government sentiments in Russia.

For the effective implementation of the information policy in the south-eastern region of Ukraine and, above all, in the area where the EO is conducted, there is an urgent need to create appropriate IPO centers directly in the sectors of its implementation. This makes it possible to respond promptly to changes in the situation in the relevant sector, taking into account the mentality, views and lifestyle of the local population, the characteristics of industry, agriculture, the activities of authorities and local self-government in each sector, and the composition of the military formations of the opposing parties.

In our opinion, the main tasks of these centers should be as follow:

- reconnaissance and implementation of information-analytical activities to identify real and potential objects of action to determine ways and methods of their neutralization;
- operational study, evaluation and forecasting of the development of the social and political situation in the areas of responsibility;
- organization and implementation of IPIO on selected objects of influence in cooperation with information agencies, TV and radio companies, publishing houses, editorial offices, cultural and educational centers, as well as legal entities and individuals (legally or under cover);
- counter-propaganda;
- production and distribution of campaign materials;
- introduction of special programs for interception, creation of information and computer viruses into the computer networks of the enemy in order to reduce the efficiency of the functioning of the enemy's control and communication system;
- radio-electronic suppression of the enemy's radio-electronic means that can be used to carry out IPI and use the laws of radio-electronic protection of their troops;
- coordination with the IPO tasks of the regional media centers of the Armed Forces of Ukraine on the dissemination of information to the objects of influence;
- supporting the activities of local executive bodies and local self-government, creating a positive attitude among the local population towards the actions of their troops;

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

- promoting the development of the resistance movement and partisan movement in the temporarily occupied territory.

Conclusion

It should be noted that in modern conditions, the nature of the information-military struggle has changed significantly: it is increasingly taking on the characteristics of a hybrid war. The emphasis of the military struggle is shifting towards the practical implementation of information technologies. At the same time, informational and psychological operations, actions and actions are gaining more and more importance in achieving political and military goals.

It should also be noted that this article was prepared in November 2021. However, on February 24, 2022, Russia's war against Ukraine began. Therefore, it one should state that some conclusions and provisions of the article have been confirmed in life.

Bibliography

1. National security strategy of Ukraine. Approved by Decree of the President of Ukraine No. 392 of 09/14/2020.
2. Constitution of Ukraine
3. Selivanov V.M. Concept of national security of Ukraine. Kind. 2nd / V.M. Selivanov K: 2015. – 28 p.
4. Pirtschalava L.G. Information confrontation in modern conditions / L.G. Pirtskhalava, V.A. Khoroshko, Yu.E. Khokhlacheva, M.E. Shelest - K: CP "Comprint", 2019. - 226 p.
5. Kulinich M.A. Ukraine in the new geopolitical space: problems of regional and subregional security / M.A. Kulinich // Science and Defense, No. 1, 2015. – pp. 8 – 19.
6. Shkidchenko V.P. Elements of the theory of military security / V.P. Shkidchenko, V.D. Kohno - K: BF "Myrotvorets", 2001. - 194 p.
7. Manachynskiy O.Ya. Modern military and political relations of Ukraine with neighboring states. Kind. 2nd / O.Ya Manachynskiy - K: NISD, 2016. - 102 p.
8. Pyrumov V.S. Two sides of parity and defense adequacy / V.S. Pyrumov // Military thought, No. 2, 2015. - pp. 25 - 34.
9. V. Khoroshko. The concept of using informational influences and countermeasures against informational weapons / V. Khoroshko, Yu. Khokhlacheva, M. Prokofiev // Legal, regulatory and metrological support of the information protection system in Ukraine, Issue 1(31), 2016. - p.9 -23 .
10. Manoilo A.V. Technologies of non-violent resolution of modern conflicts / Ed. Prof. A.N. Petrenko / A.V. Manoilo - M: Hotline - Telecom, 2008. - 392 p.
11. Information security doctrine of Ukraine. Decree of the President of Ukraine No. 47/2017 dated February 25, 2017.
12. Chuev Yu.A. Forecasting in military affairs. Ed. 3rd supplement / Yu.A. Chuev, Yu.V. Mykhailov – M: Voenizdat, 2014. – 392 p.
13. Lobov V.N. Ways of realizing the concept of sufficiency for defense (strategy) / V.N. Lobov // Military thought, No. 2, 2002. - p. 18 - 27.
14. Nikolaev Yu.A. Defense adequacy: criteria and evaluation methods / Yu.A. Nikolaev // Military thought, No. 4-5, 1992. - pp. 35 - 45.
15. Tuchkov Y.N. Unification of group troops and forms of their use in armed conflicts and local wars/ Y.N. Tuchkov // Military thought, No. 2, 2007. - pp. 45 - 51.

Scientific and Practical Cyber Security Journal (SPCSJ) 7(1): 1-10 ISSN 2587-4667 Scientific Cyber Security Association (SCSA)

16. Biloborodov O.O. Technologies of informational and psychological warfare and informational and psychological weapons / O.O. Biloborodov, A.S. Dovgopoly // Armament and military equipment, No. 4 (24), 2019. - p. 93 - 97.

17. Pevtsov G.V. Informational and psychological operations of the Russian Federation in Ukraine: models of influence and countermeasures / G.V. Pevtsov, S.V. Zalkin, S.O. Sidchenko, K.I.Khudarkovskii // Science and Defense, No. 2, 2015. – pp. 28 – 32.

18. Chepkov I.V. Organization of resistance to "hybrid war" in modern conditions: technical aspect / I.V. Chepkov, S.V. Lapytskyi, A.Yu. Hupalo, M.M. Chepura // Armaments and military equipment, No. 1(13), 2017. – p. 3 – 8.

19. Nenashev S.M. Informational - technological and informational - psychological security of users of social networks / S.M. Nenashev // Questions of cyber security, No. 5(18), 2016. - p. 65-71.