

УДК 354.1

Опубліковано 18 червня 2022 року

THE SPACE INDUSTRY AS THE DRIVING FORCE OF THE ECONOMY AND THE BASIS OF NATIONAL SECURITY

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Abstract: *This article is devoted to the formation of a fundamentally new understanding of Global Security. Space security issues determine the need for joint efforts of all participants in world politics and International relations to develop relevant universally recognized 'International Law and Principles'. Aerospace technologies allow to ensure national security, promote the development of scientific and technical, socio-economic progress. Thus, successful participation in space exploration is of strategic importance for states. It is noted that the efficiency of the use of outer space in the commercial plan, for example, in the world markets of space vehicles, information technology. This attracts not only new states to the space industry, but also private assets with their investment mobility. Domestic theory and official documents do not operate on the concept of "space economy". The paper develops theoretical ideas about the phenomenon of space economy. It is concluded that the idea of the role of the space economy (space transformation), which transforms, is becoming more widespread in the international context. The peculiarities of space economy as a branch of management are revealed, including it is shown that: space activity is an integral element of the new technological system; the formation of a comprehensive strategy for space activities is part of a deep structural modernization of the entire political and economic mechanism; space activities bring synergetic economic effects, which in their positive effects can significantly exceed the direct economic benefits; space activities are today a necessary condition for preserving national sovereignty. The need for a more comprehensive detailed study of changes in general political processes under the influence of 'Space Security' is of paramount importance in the twenty first century, which led to the relevance of the chosen topic.*

INTRODUCTION.

There is rapid development of the Space Industry in all participating countries. This, in turn, determines the use of aerospace technology in various areas of public administration. In highly developed countries, public policies

prioritize the study, development and use of outer space to address security and other socio-economic challenges.

Existing problems in Ukraine regarding the functioning of the Space Industry may lead to the destruction of national and economic security of the country as a whole. The realities of the space industry are characterized by dynamic changes in internal and external conditions. States are more or less trying to occupy a niche in the global space industry, as today it is one of the fastest growing markets. Space technologies guarantee technological, scientific, military, political and economic superiority, enable remote sensing of the Earth, prevent emergencies, increase the efficiency of exploration and extraction of natural resources, introduce innovative practices in agriculture, provide communication and navigation, environmental protection and climate change monitoring.

Even the short-term viability of this industry affects the economy and security of the country as a whole. Significant amounts of metals, high-precision measuring equipment and specialists are always needed to develop new rockets and equipment materials. That is, both mechanical engineering and metallurgy actually suffer, and such an economic parameter as unemployment, on the contrary, increases in percentage terms. Highly qualified engineers, communicators, specialists in telecommunications and electronic systems are forced to look for jobs outside the profession.

The increase in the number of participants in space activities, in turn, leads to new problems and threats in this area, both to the space security of each state individually and to global security as a whole. Therefore, in the XXI century, a fundamentally new understanding of global security is formed, where the problems of space security determine the need for joint efforts of all actors in world politics and international relations to develop relevant universally recognized international law and principles. Emphasis is placed on the classification of features of different approaches to space security in political theory. Nevertheless, the first is of paramount importance in the 21st century, according to which the system of national security is based on the concept of space security and the use of space resources in various spheres of the economy and defense.

Analysis of recent research and publications.

Theoretical principles of the role of the space industry in general were considered by the author on the basis of the work of scholars of international law, international and space law, administrative law, public administration and

administration of other branches of law, namely:

The importance of space research and development as drivers of growth of scientific and technological potential and national economies noted MO Psyuk in [1].

All over the world, aerospace technologies and peaceful space exploration ensure the effective development of national economies, strengthen national security, defense and, in general, the strategic competitiveness of the country. mechanisms of state regulation of the space industry, their impact on national security, says SP Koshova [2-3].

I. Kostenko in [4] notes that the lack of awareness of the authorities about the importance of the development of the space industry leads to the containment of state regulation at the appropriate level.

The militarization of space, as well as the need to improve the rules of international space law, can guarantee national security for all countries. However, according to L. Martsenyuk [5], it is advisable to immediately form a sanctions policy against states that are aimed at dominance in space and show military aggression to ensure the security of all countries.

Purpose of the research. The purpose of the study is to identify the importance of space activities for economic development and security of the state.

THEORETICAL PRINCIPLES OF ANALYSIS OF TECHNICAL AND ECONOMIC DEVELOPMENT.

Despite the existence of different approaches to 'Space Security', (the use of which determines the development of general political processes) space has become a new Global region of world politics.

The successful implementation of space policy by the State largely determines not only its development and security, but also its role and political influence in the 'International Arena' as a whole.

All over the world, aerospace technologies and peaceful space exploration ensure the effective development of national economies, strengthen national security, defense and, in general, the country's strategic competitiveness. Ukraine belongs to a small list of countries in the world that belong to space, develops and produces launch vehicles, rocket and space systems, launches into orbit a variety of satellites, including on behalf of other countries. However, having inherited a significant part of the aerospace potential from

the Soviet Union, our country does not use it quite rationally and efficiently. The main reasons include: lack of own spaceports, lack of financial resources, termination of cooperation with the Russian Federation due to the military-political conflict in eastern Ukraine, which negatively affected the logistics of the industry and the need to find new suppliers and buyers. An effective tool for solving these problems is the commercialization of the space industry in which it is important to find its rational boundaries in view of its strategic nature for national security and the realization of geopolitical interests of Ukraine [2].

The current challenges of society due to the rapid development of technology and the rapidity of processes taking place in the aerospace markets, require decisive and consistent steps based on real opportunities and understanding of their own priorities.

The development of a strategy for future space activities involves, first of all, an unbiased assessment of the current state of the industry and the identification of the most acute problems that have arisen over the past 20 years due to various objective and subjective reasons.

In this regard, there is a desire of States to achieve space advantage for convergence into one of the factors of their world leadership. It is possible to identify the transition from the confrontation between "East and West" to the confrontation between "North and South", associated with the active involvement in space activities of developing countries such as China, India, Brazil, Iran and others. Their success in implementing their space programs will continue to influence both the formation of the global space agenda and the development of world processes in general [1]. All over the world, aerospace technologies and peaceful space exploration ensure the effective development of national economies, strengthen national security, defense and, in general, the country's strategic competitiveness. Ukraine belongs to a small list of countries in the world that belong to space, develops and produces launch vehicles, rocket and space systems, launches into orbit a variety of satellites, including on behalf of other countries. However, having inherited a significant part of the aerospace potential from the Soviet Union, our country does not use it quite rationally and efficiently. The main reasons include: lack of own spaceports, lack of financial resources, termination of cooperation with the Russian Federation due to the military-political conflict in eastern Ukraine, which negatively affected the logistics of the industry and the need to find new suppliers and buyers. An effective tool for solving these problems is the

commercialization of the space industry in which it is important to find its rational boundaries in view of its strategic nature for national security and the realization of geopolitical interests of Ukraine [2].

The current challenges of society due to the rapid development of technology and the rapidity of processes taking place in the aerospace markets, require decisive and consistent steps based on real opportunities and understanding of their own priorities. Building such steps in line with a well-thought-out space strategy is associated with difficulties of a fundamental nature, which is associated with the lack of a clear industrial and innovation policy of the state. However, delays in implementing change pose a real threat to the rapid collapse of space activities as such and cause new and unexpected problems in the political, social and security spheres. The assessment of the situation shows that these problems are systemic in nature, and the current model of Ukraine's space activities is in a state of stagnation. Some initiatives and appointments do not improve the situation, as to overcome these problems requires systematic and coordinated measures [1]. In order to solve such an urgent problem, we consider it expedient to introduce a modern model of space activities and define it as an integral part of the national development strategy of the country. It is the proposed strategy that must meet societal needs and move away from historically established trends. It will be appropriate to substantiate the main approaches of state policy in the field of space activities, to determine its directions, goals, tasks, priorities, key competencies of space activities, problems and ways to overcome them. In addition, it is necessary to develop regulations that will regulate and implement systemic measures according to a single plan and solve all pressing problems in this area to bring it to the European level.

Theoretical ideas about the space economy as a whole system have not yet developed. However, practitioners speak of it as a real phenomenon, especially since the various space-related actors, types and forms of economic activity are not just developing at an astonishing rate, but through a network of contacts and production chains are merging into a global "space ecosystem". Measuring the direct and indirect effects of the space economy on society is also in its infancy. But the conclusion that the importance of modern space as a driver of sustainable socio-economic development is only growing, has long been recognized. The dynamics of changes in the space sector, the growth of markets related to space applications, the penetration of space technology in various spheres of public life, allow us to state that there are signs of space

transformation of the world economy as a whole.

Technical development of the economy occurs through a consistent change in technological systems. At present, the life cycles of six technological systems are distinguished in the world technical and economic development:

I - the First Industrial Revolution took place, associated with the establishment of factory production of textiles;

II - the era of steam has come, railways are becoming widespread;

III - began to actively develop the chemical industry, mechanical engineering, electrical industry;

IV - the era of cars and synthetic materials, which is associated with the beginning of industrial oil refining;

V - in connection with the computer revolution that has taken place, the dominant position in the economy is occupied by such industries as nuclear energy, microelectronics, computer science, biotechnology, aerospace industry;

VI - from about 2030: is based on the information revolution, which will lead to the development of nanotechnology, space technology, non-traditional and space energy, genetic engineering of animals and humans.

The national economy of economically developed countries today is characterized by diversity with a clear dominance of the V technological structure, but it is already being replaced by VI. One of the key sectors of the economy, which is dominated by V and VI technological systems, is space activities.

The rocket and space industry is currently one of the most high-tech and knowledge-intensive industries. Rocket and space technologies are playing an increasing role in R&D, becoming an important tool for gaining and maintaining scientific and technological leadership in the international arena. Space activities are an integral part of the modern world economy and science, determining the development of significant complexes of international information and communication infrastructure, as well as systems that ensure national security.

The classification of sectors of the economy, based on the degree of "remoteness from nature", makes it clear that all the diversity of economic activities that have a direct or indirect relation to space, can not be localized within a sector. Whether it is a classical three-sector model (raw material extraction - production - services) [6-8], or modern concepts that mention a four-sector (knowledge-based economy) [9] and even a five-sector ("golden

collar economy") [10-11]), there is no doubt that the systemic elements (subjects, objects, relationships) associated with space, are present and actively developing in each of them. Moreover, space achievements and prospects are changing established perceptions of the primary sector of the economy, as, for example, the extraction of space minerals and other extraterrestrial resources may become a reality in the near future. The separation of the sphere of economic relations related to space is expedient also because in the process of research, development and use of space all new economic values are created and benefits for humanity are provided that did not exist before. The Space Forum of the Organization for Economic Cooperation and Development defines the space economy as "all public and private entities involved in the development, promotion and use of space-related products and services, from research and development, creation and use of space infrastructure (ground) stations, launch vehicles and satellites) and ending with applied spacecraft (navigation equipment, satellite phones, meteorological services, etc.), as well as scientific knowledge gained as a result of such activities" [12]. The core of the space economy is the space industry - an industry that is a set of economic entities that provide goods and related to space [13]. However, the industrial component is only part of a long global chain of value added, which "begins with the subjects of research and development, manufacturers of space technology and ends with suppliers of space products and services to end users" [14]. Today's space economy is something more than the sum of its constituent elements, as it has a special additional systemic property in the form of quantitative and qualitative impact, which is constantly spreading and increasing, which have on the economy and society as a whole newly created space products, services and knowledge [15 - 17].

SPACE ECONOMY AS AN INTEGRAL COMPONENT OF THE GENERAL ECONOMY OF THE STATE.

Attention to the space economy is constantly growing, as states and private investors see this high-tech sector as a promising source of economic growth and innovation [18]. If we consider space as a promising investment trend, the space economy in the near future will finally go beyond the aerospace and defense industries (primarily due to the further development of the ICT and telecommunications sectors) and become global in the full sense of the word.

In addition to the direct long-term impact of the space economy on economic growth (depending on the type of actors, such gains may include: improving resource allocation, improving national security and law enforcement, availability of new markets, reducing information asymmetry, increasing production efficiency and lowering prices); second-order economic effects related to indirect or unintentional acts of interaction and interaction within the growing number of space programs, as well as other effects induced by their possible synergy, will play an increasing role [19-21]. A typical example is the improvement of the system of meteorological satellites, which improves weather forecasting, which, in turn, leads to an increase in the reliability of satellite navigation at sea. No less significant result is the increase in the quality of forecasts of dangerous natural phenomena (hurricanes, tsunamis). Another example is spinoff technology, which, according to NASA, is a commercialized product that includes NASA technology or experience that benefits the public [22].

Experts unanimously predict that the impact of the space economy on the formation of new markets and changes in the existing world economic system will increase [23]. All these changes and the impact of space activities on various spheres of economic life (and even more broadly - on socio-economic progress) can be interpreted as a state of transition, or the beginning of space transformation of the world economy. The idea of space transformation (transforming the role of space economy), due to the complex nature of the impact of space technology on modern socio-economic development, is gradually taking shape in public discourse. Space technologies themselves continue to play the role of drivers of space transformation, and their purpose is changing. In fact, space transformation today is linked to and emerging from the ever-expanding flow of emerging technologies, which by their nature are also constantly evolving in favor of society.

In view of all this, the transformational technological shift associated with the effects of the "new space" and space economy may lead to a period of new modernization based on additional innovations, and thus to overcome the existing trap of persistently low economic growth. It should also be noted that measures of purely macroeconomic regulation are in themselves necessary, but not sufficient to accelerate the overall dynamics of economic change. The possible change in the trend should be related to the real strengthening of new sources of development (space economy), flexible methods of institutional and structural design (space law) and investment in human capital (space

education), which will form a triad of space transformation.

A new strategic 'race' for leadership, in Space exploration is developing.

The "Second Space Race" has many different characteristics. The participants have changed in number, in direction and in the nature and levels of their interaction.

A distinctive feature is that along with the Space Race, Space Co-operation is developing, which, however, is more political in nature and is a supporting factor for States (Countries) in their quest to take a leading position in space and then in the world.

A study of changing approaches to understanding security has revealed the expansion of the subject field and the emergence, in particular, of new types of Space Security. The current process of globalization closely links such levels of 'Space Security' as Global, International and National Security, equal in importance and influence, into a single system.

The study identified two approaches to the definition of 'Space Security, which shape the policy of participants in International relations to ensure it, which affects the development of general political processes in the twenty first century.

According to the first approach, the concept of national security is the basis of the space security system.

The second approach, which reflects the global nature of 'Space Security', closely, linked to the rule of International Law and the increasing interdependence of the modern world.

According to this study, 'Space Security' is, determined by sovereign equality in the conduct of independent 'Space Activities' that do not pose a threat to peace and security in outer space.

Despite the Global significance of this approach, the first approach is still of paramount importance. The second approach is an auxiliary factor for states in ensuring their national security [2].

Therefore, the choice of the concept of the course in 'Space Activities' depends on the approach taken by the State. From the concept of, unlimited and free use of space assets to realize their national interests and achieve world leadership to the concept of curbing the militarization of space and its use exclusively for peaceful purposes in the interests of all members of international relations, for the benefit of all mankind.

It is also impossible to ignore the content and trends of problems and threats to space security. Military, militarization of outer space. Environmental,

pollution of outer space, Legal, lack of international law, relevant changes in space, related to 'Space Activities' of countries and lead to an increase in global terrestrial problems of mankind (environmental pollution, arms control and maintenance of global security, lagging behind the process of creating norms of international law from modern realities, etc.).

These problems and threats are interrelated and Global in nature, so their solution is possible only by taking comprehensive measures by the world community to improve 'International Law', develop international institutions, strengthen international co-operation and overcome military-political contradictions [3]. Thus, the factor of space security is part of the problem area of world politics. Identified the main approaches of states to ensure space security, as well as confirms their impact on strengthening existing space security problems with a global dimension.

A comprehensive study of space programs of different space potential conditions of existence of problems of space safety, the general and special directions of development come to light [1].

With the entry of Mankind in the twenty first century, a new stage in the study and use of outer space is, characterized by two conflicting trends.

One of the trends is, related to disintegration processes, based on the desire of a number of countries to address their own space security in the face of global conflicts, especially in the use of outer space for military purposes.

This, as well as the desire for dominance in space to take a leading position on the world stage, led to the emergence and development of the "Second Space Race", which has different characteristics than the first.

The current development of the "Second Space Race" suggests that this process will continue due to the desire of some countries to take the lead and their unwillingness to uphold international legal restrictions, the adoption of which would strengthen both space security of each country and global security in general. While simultaneously continuing to promote the desire of other countries to increase their space capabilities, including in the military sphere.

In the context of the growing struggle for control of space, the threat of weapons being, placed in outer space comes to the fore. International co-operation on this issue today is political rather than disarmament. For example, some countries are seeking to prevent restrictions on the military use of space to their advantage, while others are working together to prevent its militarization.

The lack of positive results in this matter will, ultimately lead to the undermining of 'International Space Law', further militarization of space could, increase and intensify the probability of Inter-Continental disputes and in the long run military conflicts.

The lack of consensus already causes tensions between States and affects the development of their relations in other areas, such as ecology, economics, etc., as well as the solution of global earthly problems of Mankind [10].

The development and strengthening of co-operation both between States on a number of international issues and between them and non-state actors in 'Space Activities' is a characteristic trend of a new stage in the study and use of outer space. Compared to the situation twenty years ago, the scale of International co-operation has changed qualitatively. In connection with the expansion of the range of participants in 'Space Activities', with the involvement of private capital, along with bilateral, multilateral co-operation that promotes the free market (Sea Launch projects, GMES, GEOS) is becoming increasingly profitable.

Such co-operation allows States to resolve both global problems related to the study of threats to space security and the development of international co-operation in research projects, and national - on socio-economic development, which contribute to improving the lives of society.

In addition, the costs and risks to States to implement these projects are too high for one State alone, so it is clear the desire of countries to expand international co-operation in space [5].

Along with multilateral co-operation, the process of regionalization is actively developing. The latest unification of Asian countries, which have some common problems in the field of space exploration, in the Asia-Pacific Space Agency will help strengthen their relations as a whole, will serve the development of co-operation, scientific and technological progress, innovation. The participation of many countries in 'International Space Projects' proves that convergence and Global co-operation in space have become a well-established norm in their Space Activities. Cosmonautics is a high-tech industry, its development requires the development of many assistive technologies. The same life support systems, nuclear energy, medicine, computer science - these are the industries that can become the basis of a new technological system, ensuring the recovery of the economy. After all, the role of development of this industry is literally invaluable:

- innovative developments. The space industry is always researching and implementing the latest technologies, tools and materials. They are first tested for space experience, and then go in powerful flows into the world economy. Significant volumes of such developments are the basis of the research and production base of the space industry. And it has long begun to work as a separate and independent branch of the economy of any country;

- impetus for development within healthy competition. From the space industry, a lot of development goes to the military industry - it affects the level of national security of the whole country. And from the military industry, development and technology are already moving into the civilian sphere of life;

- political aspect. Those countries that have great space potential, attract investment from other countries and are actively engaged in interstate business activities, uniting in alliances and organizations.

Competition is growing with the development of new technologies, which provides opportunities for the formation of new market forces. In addition, the intensity of all economic processes is stimulated.

SPACE SECURITY AS A PRIORITY IN SOLVING GLOBAL PROBLEMS OF MANKIND.

Investments in space technology and research bring huge profits if they are used in the economy. In particular, we are talking about: solar energy, cellular communications, multifunctional use of satellites, medicine, cosmetology, space startup market, clothing accessories, space tourism, industrial development of space resources, etc. [23].

Belief in the transformative role of the space industry is increasingly gaining public opinion, thanks to the public activity of space visionaries, like Elona Musk, multiplied by the possibilities of modern communication technologies. However, it is obvious that, as in the case of the phenomenon of digital transformation, the scientific understanding of the effects arising from the dynamic development of the space economy lags behind the rapidly changing realities. At the initial stage, the development of the space economy was understood mainly as a new mechanism for using certain space technologies to solve traditional economic problems. As we became aware of the barriers, risks, and benefits of the space economy, we came to a more balanced understanding of it as an activity to create economic value and benefit people in the space exploration process.

The structural features of the space industry lead to its special

vulnerability to economic shocks. The space sector includes many activities, from the production, launch and operation of satellites, to a variety of commercial programs that depend on satellite data and signals (such as broadband). Space exploration and satellite production are characterized by low production volumes and a high level of specialization with a limited number of specialists and contractors. Value chains are becoming more global, but many countries would like to maintain some control over space.

Security, being one of the main factors in world politics, is gaining a cosmic dimension. The desire of countries to ensure their national space security leads to increasing global problems of mankind: environmental pollution, arms control and maintenance of global security, lagging behind international law from modern realities, etc., which can be solved only by the world community.

Traditionally, there are two approaches to the definition of space security, which shape the policy of actors in international relations to ensure it, which affects the development of political processes in the XXI century. According to the first approach, the concept of national security is the basis of the space security system. The second approach, which reflects the global nature of space security, is closely linked to the rule of international law and increasing interdependence in the modern world. According to him, space security is determined by sovereign equality in the conduct of independent space activities that do not pose a threat to peace and security in outer space. Despite the global significance of this approach, the first approach is still of paramount importance. The second approach is used as an auxiliary factor for states in ensuring their national security.

Thus, the choice of the concept of the space course depends on the approach taken by the state: from the concept of unlimited and free use of space assets to pursue their national interests and achieve world leadership to the concept of curbing the militarization of outer space and its use only in peacetime. for the benefit of all actors in international relations, for the benefit of all mankind.

THE IMPACT OF THE DEVELOPMENT OF INFORMATIZATION IN THE SPACE INDUSTRY ON THE MAIN SPHERES OF SOCIETY.

In recent years, the space industry has also achieved significant results in the field of informatization of society, the main of which are:

1. The basic needs of the society in space communication and retransmission of TV and radio programs are provided.

2. Created scientific and technical principles for spacecraft remote sensing of the Earth, meteorological observations, basic space research, able to meet the needs of society to the extent necessary to perform operational tasks of operational control of the territory using space-based monitoring and continuous analysis of the environment.

3. The work of the international satellite search and rescue system COSPAS-SARSAT is provided, which is designed to receive emergency beacon signals from anywhere in the world, identify objects in distress, automatically determine the geographical coordinates of the accident site and disaster alert. search and rescue services;

4. The range of services (in terms of continuity and accuracy) for determining the location and speed of objects with the help of global navigation systems GPS and GLONASS has been expanded.

In general, the potential opportunities for the development of the main spheres of society and the relevant components of the defense capabilities of any state are determined by the state of information processes. Currently, information is considered a strategic national resource.

The growing role of information and technological struggle is blurring the line between war and peace. The armed forces of a number of states are in constant confrontation, and military informatics, even in peacetime, solves the problems inherent in war. The Pentagon, for example, is guided by the slogan "Electronic warfare is never declared, never stopped, is conducted in secret and knows no boundaries in space and time." The struggle for ownership of computer networks began. The exchange of "information strikes" is becoming increasingly dangerous for countries around the world, as their effectiveness is growing rapidly.

A new, post-nuclear stage of development is coming in military affairs. The effectiveness of modern weapons is increasingly determined not so much by firepower as by the degree of information security.

Informatization of the army has become a priority of the military-technical policy of the state. The importance of information and technical confrontation has increased in the content of hostilities. This is evidenced by the experience of armed conflicts and local wars of today.

For example, the analysis of the use of armed forces by leading world powers in local wars and armed conflicts in recent decades reveals the main trends in armed struggle and the characteristics of wars of the late twentieth century, which become an integral part of military conflicts in the XXI century. One such trend is the rapid growth of the role of space resources in preventing,

preparing for and waging modern wars of any scale. This is due to a number of reasons:

- intensive development of modern information technologies and their use in the military sphere leads to an increase in the role of the information component in the preparation and provision of hostilities;
- the general tendency to unite forces and means of defeating the enemy and ensure combat operations of different types of troops in integrated military complexes leads to the need to use a single information field;
- the emergence and development of new operational-strategic, tactical and functional concepts of the use of promising armed forces is based on the extensive use of space resources.

Thus, the success of military operations on land, air and sea, as well as the prevention of war, military-political crises or armed conflicts, depend significantly on the effectiveness of the use of space information and, consequently, on the degree of protection of space received and used information.

The interests of information security are in the priority of the development of space systems that provide effective support for the actions of troops and naval forces during combat operations. Without space systems, it is now impossible to achieve such qualitatively new capabilities of the armed forces as mobility, readiness to respond flexibly, focus on high-precision weapons, compactness and economy.

It is also becoming increasingly appropriate to use space systems in the field of weapons and military control, which will provide a significant increase in the accuracy of missile strikes and rapid assessment of the results of action. In particular, space systems have a significant impact on the effectiveness of high-precision weapons. They allow you to fully automate the entire combat cycle - the detection of stationary targets, including camouflaged and small, the issuance of information to weapons systems, navigation and control of means of destruction in flight, monitoring the effectiveness of the application.

CONCLUSIONS AND RECOMMENDATIONS.

Space activities are an integral part of the new technological system, based on the use of information, to which economically developed and newly industrialized countries are moving. The formation of a comprehensive strategy for space activities is part of a deep structural modernization of the entire political and economic mechanism. The purpose of space activities goes beyond solving specific technical problems and obtaining commercial benefits

in the traditional sense: space activities, bringing a synergistic effect to the national economy, is a lever to create competitive advantages at the level of individual industries and at the macro level.

Today, it is impossible to say unequivocally that one thing determines the interest of States in the exploration and use of space resources. For some countries, primarily located in Asia, Africa, Latin America, space is a source of socio-economic benefits, research of their natural resources, environmental monitoring and prevention of natural disasters, economic growth, improving the quality and quality of life. , etc. For other countries, space is primarily a matter of prestige and political dividends, as well as ensuring their security. That is why, despite the global financial crisis, many countries around the world continue to actively fund their space activities. However, International co-operation in space brings both scientific and technical, socio-economic and political benefits, as well as affects not only all humanity as a whole, but also each individual. Without International co-operation in space, it is impossible to implement large-scale space projects, as well as address global problems and threats to space security.

In addition, the development of International co-operation is attractive to States primarily for political reasons. In particular, through the formation of a global space agenda, they have the opportunity to influence the development of space programs in other countries, therefore not only achieving their foreign policy goals, but also strengthening their place in the international arena.

We can say that international cooperation is a supporting factor for States in their quest to take a leading position in space and then in the world. Therefore, it is obvious that International Space Co-operation, given its advantages and in solving space security issues of global significance, will continue to develop. Successful space activities are now becoming a necessary condition for preserving national sovereignty, both in the military-political aspect and in the field of information security. Practical areas of application of modern spacecraft are not only the cultivation of crystals in weightlessness and other research, but primarily navigation, meteorology, communications and reconnaissance. Astronautics creates new information markets.

Based on the above, we can conclude that the priority development of space systems for various purposes is a vital factor in ensuring both the national economy and security in general, including information security.

Prospects for further exploration are the analysis of the impact of the space industry on specific sectors of the national economy.

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