

# INTERNATIONAL MILITARY-SPACE COOPERATION OF UKRAINE: LEGAL ASPECTS

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**Annotation.** Outer space acts as a tremendous resource for the security and defence of a country and the protection of its citizens. Ukraine, despite having to deal with Russia's full-scale armed aggression, is gradually restoring and building up its space capabilities through cooperation with partner countries. International cooperation in the military and space spheres is manifested as a whole through bilateral treaties on military geography, exchange of various kinds of information that has been obtained through space activities. The space origin of many types of data is no longer unusual and has long been used in the management of military forces. The article is devoted to the modern issues of legal aspects of international military-space cooperation of Ukraine. The research enlightens the importance of legal regulation in the field of space activities to ensure national security and emphasizes the role of legislation in the organization and regulation of space activities, as well as the importance of global partnership and cooperation in achieving space security goals. In the context of the war in Ukraine, there is a need to strengthen international cooperation. Also, it is necessary to expand government-funded military space endeavors and develop a coherent plan for the development of military space cooperation aimed at ensuring national defence interests with allied countries. In addition, the most important activities along this path are strengthening interdepartmental coordination between government agencies involved in space activities, improving the legal framework and elevating the qualifications of space industry and military specialists through the reasonable application of international best practices and advanced experience.

**Key words:** international security, bilateral agreements, defence and intelligence, space activities, international law, information and data sharing, remote sensing.

## 1. Introduction.

In the context of the war in Ukraine, the relevance of military-space cooperation and space activities is increasing. International security, in particular the security of European states, depends on outer space, which is becoming a key resource for providing defence measures. Space activity has a wide field of application and modern military operations cannot be imagined without the use of satellite navigation, communication, intelligence and surveillance systems. Moreover, Russia actively uses space technologies in the war against Ukraine, which leads to the need to use such technologies for Ukrainian defence capabilities. Among the important vectors of cooperation between states in the field of military use of space is the exchange of information obtained by monitoring the Earth's surface with the help of satellites. Sharing other types of information between allies can significantly improve situational awareness and coordination.

For example, satellites play an important role in gathering geospatial data, such as images of the Earth's surface, radar data, and intelligence signals. Such data are also used to monitor military forces and activities, as well as for terrain mapping and operational planning.

Satellite navigation systems provide advantages through precise positioning and information resources for commanding troops, so that international military-space cooperation can also help to update and improve the accuracy of navigation data. Nevertheless, in order to ensure cooperation between allies, the expansion of the legal framework for international cooperation remains a matter of great significance.

## 2. The aim of the work.

The purpose of the article is to study actual legal aspects of international military-space cooperation of Ukraine.

## 3. Review and discussion.

At the present time, the most urgent goal of space activities for Ukraine is to ensure the state's long-term interests in the field of national security and defence capability. In this regard, according to the *Law of Ukraine «On Space Activities»*, the National Target Scientific and Technical Space Program of Ukraine is used to determine the needs for civil, defence and dual-use space technology (Article 7). At the same time, the law on space activities defines the range of agencies that carry out space activities in the field of defence and national security, namely: The Ministry of Defence and the intelligence agencies of Ukraine.

In addition, the mentioned military agencies have certain competencies in the field of space activities related to the defence and security of Ukraine (Article 28), for instance: development of the conceptual framework of the state space policy in the part related to the creation and use of military space technology, as well as development of the conceptual framework of dual-use space technology in cooperation with the central executive body that ensures the formation and implementation of the state policy in the field of space activities; implementation of the space technology usage in the defence sector of Ukraine; ensuring the functioning and development of space infrastructure objects in the interests of reconnaissance activities, etc. [1]

*The Concept of the State Space Policy Realization for the period to 2032* has certain vectors for its implementation, including the development of space technologies and their integration into the sector of national security and defence. The joint efforts of several agencies, including the Ministry of Defence, are planned to develop of the outer space monitoring and analysis integrated multifunctional system with providing monitoring of the low-orbit space objects and their cataloguing, as well as to provide the following activities on demand of public authorities, managing in the field of national security and defence:

- Satellite communication and data retransmission services, coordinate-time and navigation support, outer space monitoring and analysis;
- Certified and prompt delivery of the information received from remote sensing satellites, providing technical support for advanced technologies development for its special utilization;
- Development of the multifunctional hardware. [2]

Commenting on international space cooperation in general, it is worth mentioning that the State Space Agency of Ukraine is the central executive body that implements state policy and carries out international cooperation in the field of space activity. [3] At the same time, *the Regulations on the Ministry of Defence of Ukraine* states that the specific military institution conducts space activities in the field of defence and national security of Ukraine in accordance with the law (36 subparagraph of paragraph 4). [4] The essence of the implementation of international cooperation by the Ministry of Defence of Ukraine and the Armed Forces of Ukraine is disclosed in *the Instruction for the organization and implementation of international cooperation in the system of the Ministry of Defence of Ukraine*, which was approved by the Order of the Ministry of Defence of Ukraine dated 23 July 2021 (No. 218). Thus, the principles on which international cooperation is based in the system of the Ministry of Defence are as follows:

- ensuring the national interests and security of Ukraine by maintaining peaceful and mutually beneficial cooperation with members of the international community according to generally recognized principles and norms of international law;
- ensuring the protection of sovereignty, territorial integrity and inviolability of the state borders of Ukraine, its interests in the field of military security by diplomatic and other means and methods provided for by international law;

- promotion of international peace and security in the world, participation in a comprehensive political dialogue to increase the mutual trust of states, overcoming security threats;
- ensuring the implementation of the state's strategic course towards accession of Ukraine to the EU and NATO;
- strengthening the role of international law in international relations, ensuring compliance and implementation, developing new principles and norms of international law;
- prevention and settlement of international conflicts. [5]

In the system of the Ministry of Defence, international cooperation activities are carried out in various forms, particularly in the form of information exchange provided for by international treaties and agreements. [5] In matters of military-space cooperation, this form is important for ensuring national security and defence by using space information systems, as there are several valid bilateral agreements between the Ministry of Defence and partner countries, which cover cooperation in the fields of military geography, military topography, topography, cartography, geoinformation systems, remote sensing and exchange of geographic information. Such bilateral legal acts are as follows:

- Agreement on cooperation between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Hungary in the field of military topography dated 26.02.1998;
- Agreement between the Ministry of Defence of Ukraine and the Ministry of Defence of the Italian Republic on cooperation in the field of military geography dated 08.10.2008;
- Memorandum of understanding between the Ministry of Defence of Ukraine and the Ministry of Defence of the United Kingdom of Great Britain and Northern Ireland regarding cooperation in the field of topography, cartography, geoinformation systems, remote sensing and exchange of geographic information dated 31.10.2009;
- Agreement between the Ministry of Defence of Ukraine and the Ministry of Defence of the Czech Republic on cooperation in the field of military geography dated 12.04.2011;
- Protocol between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Bulgaria on cooperation in the field of military geography dated 04.07.2012.

Each of the listed cooperation agreements has certain features that are directly related to military space activities. For example, within the framework of the *Agreement on Cooperation between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Hungary in the field of military geodesy*, the main directions and forms of cooperation are outlined, among which it is worth highlighting the exchange of topographic and special maps, as well as digital cartographic information, and also the exchange of Earth remote sensing materials along with cooperation on the use of space tools to study the Earth's surface. [6]

The *Agreement between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Italy on cooperation in the field of military geography* defines such terms as: *military geography*, which includes the concepts of geography, geodesy, astronomy, gravimetry, geophysics, topography, hydrography, photogrammetry, cartography, digital cartographic data in order to meet the needs of the relevant military structures; *digital geographic data* as a part of geographic materials (products) that contains information on topographic, marine and aeronautical maps, as well as materials of remote sensing in digital (raster, vector or matrix) form; *remote sensing* as a set of measures aimed at obtaining data about the Earth from distance (air or space) using electromagnetic radiation of various frequency ranges; and other definitions. In accordance with this Agreement, cooperation is carried out in many directions and forms, among which is the exchange of Earth remote sensing materials. In addition, the parties to the Agreement carry out a mutual exchange of non-classified materials and information related to military geography, which includes, among other things, digital geographic data. [7]

Cooperation within the framework of the *Memorandum of Understanding between the Ministry of Defence of Ukraine and the Ministry of Defence of the United Kingdom of Great Britain and Northern Ireland regarding cooperation in the field of topography, cartography, geographic information systems, remote sensing and the*

*exchange of geographic information* is achieved through the exchange of information for use by both countries for defence purposes, joint creation of geospatial information databases, exchange of such information and materials, etc. [8]

*The agreement between the Ministry of Defence of Ukraine and the Ministry of Defence of the Czech Republic on cooperation in the field of military geography* defines many directions for the implementation of cooperation, one of which is the joint production of joint research projects, especially those related to global geodesy, geophysics and geoinformation systems. [9]

Also, according to *the Protocol between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Bulgaria on cooperation in the field of military geography*, cooperation is carried out in several directions, particularly in the direction of the exchange of technical information related to the standardization of methods, procedures, technical documentation, formats of collection, assessment, processing and production of geospatial information and related materials. At the same time, a mutual exchange of geographical materials and information is carried out, including the materials of remote sensing. [10]

#### 4. Conclusions.

Currently, international cooperation is an extremely relevant and promising area of activity of Ukraine in the field of national security and defence. Ukraine has a significant potential for military-space activities within the framework of international cooperation, as it has an extensive system of state bodies involved in military-space activities and experience in participating in international projects in the field of space technologies. Bilateral agreements play an important role in the enrichment of international experience in the use of outer space for security and defence purposes, and therefore, international law occupies a decisive place in the regulation of the military use of outer space and the interaction of states in this field, particularly in the exchange of information of various kinds.

As practice shows, in order to strengthen international cooperation in a state of Russia's full-scale invasion of Ukraine, the necessary steps are to increase the financing of military-space activities by the state and initiate a clear strategy for the development of military-space cooperation with partner states to ensure defence needs. In addition, important measures in this direction can be taken, for example: the improvement of coordination between various state bodies related to space activities, the development of the legal framework and the advancement of the qualifications of specialists in the space industry with the help of the involvement of international experience.

#### References:

1. Pro kosmichnu diialnist: Zakon Ukrainy [On Space Activities: Law of Ukraine] vid 15.11.1996 r. № 502/96-VR. URL: <https://zakon.rada.gov.ua/laws/show/502/96-%D0%B2%D1%80> [in Ukrainian]
2. State Space Agency of Ukraine (2012). Kontseptsiia realizatsii derzhavnoi polityky u sferi kosmichnoi diialnosti na period do 2032 roku [Concept of the State Space Policy Realization for the period to 2032]. URL: [https://www.nkau.gov.ua/docs/articles/Koncepciya\\_2032.pdf](https://www.nkau.gov.ua/docs/articles/Koncepciya_2032.pdf) [in Ukrainian/in English]
3. Polozhennia pro Derzhavne kosmichne ahentstvo Ukrainy [Regulations on the State Space Agency of Ukraine] vid 14.05.2015 r. № 281. URL: <https://zakon.rada.gov.ua/laws/show/281-2015-%D0%BF#Text> [in Ukrainian]
4. Polozhennia pro Ministerstvo oborony Ukrainy [Regulations on the Ministry of Defence of Ukraine] vid 26.11.2014 r. № 671(amended by the resolution of the Cabinet of Ministers of Ukraine dated 19.10.2016 № 730). URL: <https://zakon.rada.gov.ua/laws/show/671-2014-%D0%BF#Text> [in Ukrainian]
5. Instruksiiia z orhanizatsii ta zdiisnennia mizhnarodnoho spivrobotnytstva v systemi Ministerstva oborony Ukrainy [Instruction for the organization and implementation of international cooperation in the system of the Ministry of Defence of Ukraine] vid 23.07.2021 r. № 218 URL: <https://zakon.rada.gov.ua/rada/show/en/v0218322-21#Text> [in Ukrainian]

6. Uhoda pro spivrobotnytstvo mizh Ministerstvom oborony Ukrainy ta Ministerstvom oborony Uhorskoj Respubliki v haluzi viiskovoi topoheodezii [Agreement on cooperation between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Hungary in the field of military topography]: Uhoda, Mizhnarodnyi dokument 348\_086 vid 26.02.1998 r. URL: [https://zakon.rada.gov.ua/laws/show/348\\_086/#Text](https://zakon.rada.gov.ua/laws/show/348_086/#Text) [in Ukrainian]
7. Uhoda mizh Ministerstvom oborony Ukrainy ta Ministerstvom oborony Italijskoj Respubliki shchodo spivrobotnytstva v haluzi viiskovoi heohrafii [Agreement between the Ministry of Defence of Ukraine and the Ministry of Defence of the Italian Republic on cooperation in the field of military geography]: Uhoda, Mizhnarodnyi dokument 380\_040 vid 08.10.2008 r. URL: [https://zakon.rada.gov.ua/laws/show/380\\_040#Text](https://zakon.rada.gov.ua/laws/show/380_040#Text) [in Ukrainian]
8. Memorandum pro vzaiemorozuminnia mizh Ministerstvom oborony Ukrainy ta Ministerstvom oborony Spoluchenoj Korolivstva Velykoj Brytanii ta Pivnichnoj Irlandii stosovno spivrobotnytstva v haluzi topohrafii, kartohrafii, heoinformatsiinykh system, dystantsiinoho zonduvannia zemli ta obminu heohrafichnoju informatsiieu [Memorandum of understanding between the Ministry of Defence of Ukraine and the Ministry of Defence of the United Kingdom of Great Britain and Northern Ireland regarding cooperation in the field of topography, cartography, geoinformation systems, remote sensing and exchange of geographic information]: Memorandum, Mizhnarodnyi dokument 826\_032 vid 31.10.2009 r. URL: [https://zakon.rada.gov.ua/laws/show/826\\_032#Text](https://zakon.rada.gov.ua/laws/show/826_032#Text) [in Ukrainian]
9. Uhoda mizh Ministerstvom oborony Ukrainy ta Ministerstvom oborony Cheskoj Respubliki pro spivrobotnytstvo v haluzi viiskovoi heohrafii [Agreement between the Ministry of Defence of Ukraine and the Ministry of Defence of the Czech Republic on cooperation in the field of military geography]: Uhoda, Mizhnarodnyi dokument 203\_060 vid 12.04.2011 r. URL: [https://zakon.rada.gov.ua/laws/show/203\\_060/#Text](https://zakon.rada.gov.ua/laws/show/203_060/#Text) [in Ukrainian]
10. Protokol mizh Ministerstvom oborony Ukrainy ta Ministerstvom oborony Respubliki Bolharii pro spivrobotnytstvo v haluzi viiskovoi heohrafii [Protocol between the Ministry of Defence of Ukraine and the Ministry of Defence of the Republic of Bulgaria on cooperation in the field of military geography]: Protokol, Mizhnarodnyi dokument 100\_090 vid 04.07.2012 r. URL: [https://zakon.rada.gov.ua/laws/show/100\\_090/#Text](https://zakon.rada.gov.ua/laws/show/100_090/#Text) [in Ukrainian]

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