Commentary

MILITARY ACTIVITIES IN SPACE AND INTERNATIONAL LEGAL REGULATIONS

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Nowadays all leading nations of the world realize their geopolitical interests in space and have started large-scale space activities. Economic and social development is impossible without space activities. At present, space systems provide efficient solutions to many problems, including environmental monitoring, control of emergency situations and supervision of activities to eliminate their consequences, global and high-precision positioning in time and space in any part of the world, surveys of natural resources, and global and uninterruptible communication at any distance, etc.

There are a number of tasks accomplished by these space systems in the area of national defense and security, which enable:

- political leaders to be sure that any preparations for war and the outbreak of hostilities will immediately be detected and the state will be able prepare for counteractions or prevent such aggression;
- the supreme military command of the state to have reliable control of the forces and to conduct combat operations in all four media;
- the supreme staffs to develop plans for military campaigns and strategic operations, and to control their implementation;
- to conduct operations of force, if necessary, and ensure superiority in low-earth space and hence, to deprive the enemy of the capability to use outer space as an asset;
- to interact with Army and Navy groups in attacking (via outer space) enemy forces in any region of the world and to transform strategic, operational, and even tactical operations into global ones.

To understand the scale of the process, one has to remember that more than 130 states conduct some activities in space, out of which 40 develop space defense programs and 20 have their own space programs. There are more than 700 spacecraft in the world, costing billions of dollars. A substantial portion of these spacecraft serve military purposes. More than 1,000 companies in the world are directly connected with space industry.

The use of space facilitates the informatization of the global community. The expensive space systems, belonging to sovereign states, are deployed into orbit. At the same time, such an informational leap by the world community in outer space without the improvement of international legal regulations may pose a significant threat to mankind. The pre-requisites for the accelerated emergence of such challenges are as follows. The exploration of outer space facilitates the transformation of information into weapons and encourages the development of prospective weapon systems, which creates a combination of space information systems and other combat means. As a result, these means will be able to accomplish both tactical and strategic missions.

The reason for such impressive changes is that a number of space systems have already achieved certain quantitative and qualitative characteristics that are within in the framework of combat control of weapons. This is why the general classification of space systems is starting to contain a new classification parameter – space information systems as functional sub-systems of prospective weapon systems.

Under these circumstances, an important question arises: does the development of information attack systems with space guidance meet the interests of the international community? This problem should be solved with the use of international legal mechanisms.

Moreover, a number of nations possess the scientific and technological capability to develop and produce attack systems that may be employed in all media, including space. In the long run, outer space may become the source of military threats and the arena of armed struggle.

In this regard, several conclusions can be made. Firstly, the willingness to ensure the absolute domination in outer space may become a significant element of the national military strategies of some states. As a result, outer space may fall under national sovereignty and this will prevent other nations from exploring low-earth space and getting benefits from its use. Secondly, one cannot preclude the development of new space weapons by the leading countries. Thirdly, the number of commercial and civilian satellites is increasing. They support military activities and combine this with civilian tasks – communication, distance probing of the Earth, etc. Such activities should also be regulated. Fourthly, there is a danger that national security planning will shift from the support functions of the space systems to assigning combat missions to them. Fifthly, without additional international legal documents, outer space may become an independent area of planning and implementation of combat operations.

These aforementioned conclusions force the international community to devise norms and regulations for the use of outer space. Nowadays the basic principle is "something not banned is allowed". Taking this principle into account, space military activities have been divided into three groups: allowed, banned, and unconditioned (not mentioned in international law).

Under these circumstances, the most difficult task would be to regulate those space military activities not covered by the international law, such as:

- practical military experiments and tests to develop the technology of space guidance;
- development and deployment of electronic warfare systems in outer space;
- development, testing and deployment of attack systems capable of destroying targets *in* space and *from* space.

Moreover, there is a need for identifying and verifying the threshold amount of spacecraft in certain information orbital groups, above all the number of space intelligence systems. The unilateral buildup of orbital groups used to control the weapons may undermine strategic stability in outer space and on the Earth.

Such verification and oversight can be based on a comprehensive assessment of the total number of functioning spacecraft and their technical capabilities (counting both military and dual-use spacecraft at the orbit).

It would also be useful to establish an international legal regime banning the deployment of combat means and military personnel in outer space and hence, to prevent the weaponization of space. Such a regime would:

- envisage the development of international legal norms to prevent the arms race in outer space and the elaboration of confidence-building measures;
- rule out the possibility of transforming outer space into the theater of war or the assault ground.

The existing international legal regime regulating space military activities is falling behind the progress in missile and aerospace technology and equipment. The current political measures cannot ensure effective control of the development of space weapons either.

In this context, it is necessary to promote international cooperation, which is crucial for sustainable security:

- to develop and strengthen the existing international legal mechanisms, which reduce tensions and prevent the outbreak of conflicts in outer space;

- to establish the international legal regime for the nonproliferation of space weapon technologies and technologies that strive to combine the space information systems and the attack means;
- to enhance the international system of collective security.

Therefore, the efforts of the global community should be aimed at international legal regulation of development and deployment of any weapons in outer space. Such a regime would prevent the arms race in outer space.

Under these circumstances, it is advisable to promote the coordination of some space military activities of different countries, in order to:

- improve the terminology used regarding space military activities (the notions of space military activities, space-based weapons, space dual-use and combat systems, etc.);
- update and expand the definitions of the 1975 Convention on the registration of spacecraft launched in outer space.

In addition, to prevent further militarization of outer space, the following steps should be taken:

- international agreements banning tests and deployment of any weapons in outer space should be signed;
- an international agreement on the immunity of satellites should be concluded;
- the number of spacecraft in information orbital groups used for command and control of weapons should be identified and verified;
- quantitative characteristics of weapon systems related to information space systems should be subject to limitation;
- an international space inspectorate and arbitration bodies for space inspection should be set up;
- a code of conduct in outer space should be negotiated (including a ban on dangerous maneuvers, chasing, approaches; maintenance of minimal distance between the spacecraft, etc.);
- inspections of space launches on launching sites and test ranges should take place.

Thus, one may conclude that an arms race in outer space cannot enhance anybody's security. The development of weapon systems on the basis of space technologies may result in an increasing number of parties involved in armed conflicts and in the increasing scale of conflicts, for outer space multiplies the military capability of the armed forces. The states with substantial space capabilities will have significant strategic advantages. This will force other states to develop and deploy (without controls) such military systems. A chain reaction will occur.

These problems may be resolved through a course of constructive and fruitful cooperation of the entire global community under the UN aegis. In the near future, the lack of efficient measures to curb the proliferation of military space systems, notably attack space systems, may cause a similar challenge to the threat of nuclear proliferation.