Space Activity and Space Law on the Post-Soviet Area

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Retrospective

Exploration and use of outer space was among the priorities in the former Soviet Union. The USSR was a pioneer in many directions of space researches and possessed a mighty potential of space industry. 140 enterprises and research institutes were involved in activity directly connected to outer space. The Soviet Union was the world's first country that has launched a space apparatus on the circumterrestrial orbit as well as have organized man-piloted space flight. The space sector represented one of few sectors being under the exclusive jurisdiction of the union.

The Soviet Union was among the founders of international space law. All UN treaties related to space were drafted with an active participation of the Soviet Union. The Soviet government was defined as one of depositaries for three of five main such treaties. USSR was very fast in formalizing of its participation in Outer Space Treaty, Rescue Agreement, Liability Convention, and Registration Convention (*see* Table 1).

After collapse of the Soviet Union 15 new states emerged. It of them possesses a portion of former Soviet space segment.

Before considering core of the issue I would like to provide short comments on succession of states after collapse of the Soviet Union because the process of transfer of rights and duties from the union state to new independent states has its own peculiarities in the soviet case. Such process has involved two institutes of international law: **succession** – transfer of rights and duties from one subject if international law to other subjects that have emerged after its dismemberment (relation: USSR – 15 new independent states) and so-called **continuity**, i. e., uninterrupted existence of a state as a subject of international law (relation: USSR – Russian Federation).

In my report I will focus on 12 post-soviet states (Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan). Baltic states (Latvia, Lithuania, and Estonia) are not within the scope of this report. Though they were parts of the Soviet Union after its collapse they did not participate in any integration schemes with other post-soviet states and they are members of the European Union.

According to agreement signed in Minsk on December, 8 1991, the Soviet Union ceased its existence as a subject of international law and geopolitical reality.

Principles of division of space-related property are a key issue for this report.

A number of agreements on this issue were adopted within the Community of Independent States.

The Agreement on mutual recognition of rights and regulation of ownership relations was completed between the states-participants of the

Commonwealth of Independent States in Bishkek of October 9, 1992. The Agreement established that the parties recognized mutually the transfer to their ownership of property located on the territory of each particular union republic as of December, 1, 1990.

Thus, enterprises, establishments and organizations related to space industry of union submission and the rocket-and-space infrastructure in the whole located on the territory of the former union republics) have carried over to the new independent states.

A special Agreement on **space** property was completed in the CIS. This is an Agreement **On the order of maintenance and use of space infrastructure objects for the sake of fulfillment of space programs** of May 15, 1992 completed by the governments of the Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Republic of Kyrgyzstan, the Russian Federation, the Republic of Tajikistan, Turkmenistan, the Republic of Uzbekistan and Ukraine. This Agreement, in particular, recognized that space infrastructure objects located on the territory of its Parties were the property of these states. At the same time, the right to use of immovable and moveable property at these objects was transferred on the basis of special agreements to the Strategic Military Forces (Administration of the Head of Space Facilities) of the CIS or to the other interested parties. The Agreement entrusted the Intergovernmental Space Council with coordination of space infrastructure use.

Multilateral cooperation of the Commonwealth of Independent States in nineties of the last century was realized in the framework of the **Agreement on joint activity on exploration and use of outer space** made in Minsk on December 30, 1991 between the governments of the Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Republic of Kirgizstan, the Russian Federation, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan. On the basis of this Agreement the joint space activity is carried out by the Parties on the basis of the intergovernmental programs realization of which is controlled by the Intergovernmental Council on Outer Space consisting of the authorized representatives of the Parties. At the same time, the Parties are entitled to have their independent space programs. A number of regulations of the Agreement refer to target preparation of skilled technicians in the system of higher education, research institutes and academies of sciences to remain the space infrastructure objects with personnel. States-participants of the Agreement assume obligations not take a decision and not to carry out activity resulting in malfunction of space complexes located on their territory.

It was rather difficult **to divide intellectual property** of the former USSR. As a rule, these problems were solved on the bilateral basis by means of signing corresponding intergovernmental agreements. The most difficulties appeared in the course of division of intellectual property for space products between the Russian Federation and Ukraine as the rocket-and-space industry was located mainly on the territory of these two states and the rocket and rocket-and-space products were output on the basis of close cooperation of Russian and Ukrainian enterprises.

Corresponding relationships were adjusted in a general way by the Agreement signed between the Government of Ukraine and the Government of the Russian Federation **On cooperation in field of industrial property protection** of June 30, 1993.

In spite of the fact that the corresponding common bilateral agreement on intellectual property was approved some questions on intellectual property in particular in space field have remained unsettled completely. Most of all this refers to intellectual property created during the soviet period at the expense of all-Union budget.

A brief overview of modern space complex in post-soviet states

The Russian Federation, Ukraine and the Republic of Kazakhstan became the main successors of the space potential of the former Soviet Union. Most of space facilities are located there. At the same time, the Republic of Belarus, Azerbaijan, Georgia and Uzbekistan continued to carry out space activity in certain forms. To a lesser extent it relates to another five states.

The Russian Federation became a successor of more than half of the whole space potential of the USSR. This state was and remains a leader of the space activities not only in the post-soviet area, but also in the world. The Russian Federation has a powerful space infrastructure. It includes: 2 space centers, starting complex and launchers, command-measuring complexes, several tracking headquarters and control units, information receiving, storage and processing centers, storage base of space-system engineering, target grounds for extraterrestrial objects, astronauts/cosmonauts preparation centers, experimental base for perfection of space-system engineering and other complexes and constructions used when space activity is carried out.

Ukraine has inherited almost one third of the space industry of the former USSR. For the years of independence Ukraine managed to save and multiply the potential of space industry. Suffice it to note that 15% of all launch vehicles in the world are produced at present in Ukraine. These are such established carrier rockets as “Zenith”, “Cyclone”, “Dnipro”. Since 1991 more than 90 successful launches of carrier rockets produced by the Ukrainian enterprises have been made. Ukraine is a participant of many international space projects. Space industry of Ukraine involves more then 100 thousand people.

Ukrainian space industry has a considerable export potential (more than 50% of space industry product deliveries are carried out for export).

The Baykanur space center is located on the territory of Kazakhstan. In 1994, it was leased by Russia for 20 years. In 2004, this agreement was prolonged to 2050. Beside this, the space complex of the country includes objects of platform “ZD”, target ground “Sary-Shagan” and some industrial enterprises and research centers and organizations connected, directly or indirectly, with space activity.

Kazakhstan takes part together with Russian Federation, Ukraine and other states of the former Soviet Union in development and realization of some space projects.

Until collapse of the Soviet Union, the space researches in **Azerbaijan** were fulfilled in the frameworks of the academic scientific center "Caspiy". Then this center was transformed to a scientific-and-production association. The Association produced both ground-based and board space devices and space-qualified hardware (for spaceships) in particular astrophysical devices for deep space researches and study of meteorite composition. It was this association that assumed as a basis of space industry of independent Azerbaijan. Space activity of Azerbaijan is based on two main postulates: 1) the national program of space research and use is to be directed to satisfaction of current needs of the state; 2) the program is to be realizable at the expense of own resources avoiding traditional cooperation with enterprises (organizations) that became foreign after dissolution of the USSR.

The Republic of Belarus

During the soviet period a great number of research institutes and several manufacturing firms of **the Republic of Belarus** worked in the frameworks of the space program. In contrast to Azerbaijan the space sector enterprises and organizations of Belarus during the post-soviet period were determined on preservation of wide integration ties with enterprises and organizations of the other states of the former USSR, in the first place - of Russia. This cooperation is formed on the program-purpose approach.

During the soviet period **Georgia** did not belong to a number of soviet republics with a large potential of space industry. Development of corresponding direction has been already livened up in the period of independence. In particular, in summer 1999 an experiment on putting into orbit a large-sized space-based reflecting antenna designed by Georgian experts was run. European experts render Georgia assistance in engaging investments to implement target programs in new space technologies development sphere. The European Space Agency supports the project realization.

Uzbekistan had a scientific-and technological potential in the field of space activity in the Soviet Union, which was not great in volume but of high quality. Equipment and devices designed here were applied on space stations "Salute", "Mir", in the Moon, Mars and Venus exploration programs. The main infrastructure of instrument-making for the space industry is preserved in the independent Uzbekistan. It is important that at present on manpower training for the space industry is being played high emphasis here.

Other post-soviet states have also preserved and magnified their space sector.

Participation of post-soviet states in international agreement related to space activities

While the principle of succession was guiding for division of soviet space property, the continuity principle was applied in international legal aspect as well as for the issue of soviet debts and actives abroad. It should be noted that beside USSR the Belarusian SSR and Ukrainian SSR were founders of the United Nations. The Republic of Belarus and Ukraine accepted their rights and duties as subjects of international law.

The CIS has supported Russia's intent to continue to perform USSR's duties in the United Nations including those as a permanent member of the Security Council, as well as in other international organizations. The following CIS agreements are related to this matter:

Treaty on continuity of foreign state debts and actives of the USSR signed on December, 4 1991;

Agreement on amendments to the Treaty on continuity of foreign state debts and actives of the USSR of March, 13 1992;

Agreement of heads of the CIS states on property of the former USSR abroad of December, 30 1991;

Agreement on distribution of the whole property of the former USSR abroad of July, 6 1992;

Declaration of "the twelve" on future status of Russia and other former republics of December, 23 1991.

The Address of Boris Yeltsyn to the UN Secretary-General of December, 24 1991 might be considered as an initial point of the Russian Federation membership in the United Nations.

The Russia Federation is a member of all UN structures, including the UN Committee on peaceful exploration and use of outer space, as a legal successor of the Soviet Union. Therefore, formally the Russian Federation is a member of the Committee since 1958. In 1994, Kazakhstan and Ukraine also became members of the Committee.

In the framework of activity of the UN Committee on outer space and its two subcommittees (Legal and Scientific-and-Technical) all the three states consistently adherent to the strict compliance with of the established international legal order, in particular, international legal regime based on five international UN treaties. To the moment, the Russian Federation and Ukraine are the parties of four of them: the Treaty on Outer Space, the Agreement on Rescue, the Convention on Responsibility and the Convention on Registration. They became parties to those agreements as a result of legal succession. In 1997, the Republic of Kazakhstan joined the five main treaties on exploration and use of outer space including the Agreement on the Moon. To the moment, it is the only state of the region which is a party to this instrument (*see* Table 2).

At the same time, these three delegations in the Legal Subcommittee of the Committee on Outer Space consistently come out in favor of commencement of works on improvement of the international space law and its progressive development supposing that exactly such a way corresponds to dictate of time and allows to bring the international space law up to a new high-quality standard of its development. It is emphasized adherence to preserve in the course of codification the existent international legal regime of space activity which is proposed to be assumed as a basis of the future codification.

The post-soviet states realize active international collaboration and participate in different international projects in the space field. Some of these countries remained within the old integration context, others exceeded their bounds greatly.

While analyzing participation of post-soviet states' participation in other multilateral agreements and integration schemes on space activities issues the following should be noted. Ten of twelve states (besides Armenia and Moldova) are members of the International Telecommunication Union (ITU), eight states participate in International Telecommunications Satellite Organization (ITSO), eight – in Intersputnik, and seven – in European Telecommunication Satellite Organization (EVTELSAT). Armenia, Belarus, Russia and Ukraine are parties to Comprehensive Nuclear-Test-Ban Treaty (CTBT). Armenia and Russia participate in Convention Relating to the Distribution of Programme–Carrying Signals Transmitted by Satellite. Russia is a party and depositary of Intercosmos agreement. Belarus, Ukraine and Russia are parties to the Convention on International Mobile Satellite Organization (IMSO) (*see* Table 3).

Besides multilateral cooperation between each other, some post-soviet states actively cooperate internationally including bilateral cooperation. For instance, Ukraine in the area of exploration and use of outer space has international agreements with Russia (four agreements), USA, Kazakhstan, China, Turkey, Brazil, Israel and a number of other states. !!

State governance of space activities

Article 6 of the Treaty on Outer Space establishes the principle of international liability of states for all national space activities regardless whether they are carried out by governmental institutions or by non-governmental legal entities. Based on this principle seven post-soviet states having a space segment in their economy have formed special national bodies for governing of space activities. Principles of creation and functioning of these bodies, character of their competence in each state are different. They depend on volume and directions of space activity of particular state and on the general system of public administration of the state. Thus, the Russian Federation and Ukraine has a full circle of space activity. Therefore, functioning of independent public administrative bodies with broad powers is natural here. At the same time, in the Republic of Belarus, Azerbaijan and Uzbekistan space activity is limited mainly with scientific research of space sector. Hence, governing powers within this field are entrusted to bodies responsible for scientific research.

The Russian Space Agency (RSA) was formed in 1992. In 1999 the Russian Space Agency was transformed to the Russian Aerospace Agency (Rosaviacosmos). However integration of the cosmonautics and aviation administration was not proved to be correct, and in 2004 this institution was transformed to **the Federal Space Agency** (FSA) and was submitted directly to the Government of the Russian Federation.

The National Space Agency of Ukraine (NSAU) was created in February, 1992 as an independent executive body submitted to the Cabinet of Ministry of Ukraine directly. In succeeding years the legal status of the NSAU was only improved and its powers were enlarged.

In Kazakhstan **the Agency of Space Researches of Kazakh SSR** was formed in 1991. In 1993 this Agency was transformed to the National Aerospace Agency of the Republic of Kazakhstan attached to the Cabinet of Ministers of the Republic of

Kazakhstan. In 1995 it was transformed to the National Aerospace Agency attached to the Ministry of Science and Technological Innovations. The Agency passed from jurisdiction of one ministry to another one several times. At present the **Aerospace Committee** submitted to **the Ministry of Education and Science** of the Republic of Kazakhstan is functioning. In January, 2005 **the National Joint-Stock Company Kazakhcosmos** was formed. It has rather broad powers including those of governing nature.

In 1992 the Republican Council on Outer Space entrusted with coordination of works on the space field and representation on behalf of **the Republic of Belarus** in the Intergovernmental Council on Outer Space of CIS was formed by the resolution of the Committee on Technological Progress attached to the Council of Ministers of the Republic of Belarus. In 1999, this body was transformed to **the National Council on Outer Space** attached to the Council of Ministers and established for development and realization of the state policy in the field of exploration and use of outer space of the Republic of Belarus. However this is not a standing body with authoritative powers. Their duties add up to consultative and coordinating ones.

In **Azerbaijan**, the **National Air and Space Agency** consisting of 3 research institutes, a design office and an instrumental plant, was formed in 1992. The agency founded at first under the aegis of the State Committee on special mechanical engineering and conversion of Azerbaijan (from 1992 to 2002) was transmitted in 2003 to the Academy of Sciences of Azerbaijan authorized to coordinate scientific researches and higher education in the country.

In Uzbekistan, the **Uzbek State Agency on Space Explorations Uzbekkosmos** attached to the Cabinet of Ministers of Uzbekistan was established in 1992 **On authorities on exploration and use of space**. During 10 years this Agency realized state administration, planning and coordination of scientific researches and organization of fulfillment of space projects and programs. It was dissolved in 2002. At the same time it was decided to establish the Center on Space Explorations in the system of the Academy of Sciences of the Republic of Uzbekistan.

The National Space Legislation

During the soviet period the union republics had no need to develop their own space legislation. As already mentioned, the space activity in the USSR was planned, fulfilled and regulated on the all-Union basis exclusively. After dissolution of the union state a necessity in national regulation of space activity has arisen. Such a necessity was intensified under circumstances of stream development of space activity commercialization covered at the end of twentieth century the post-soviet territory. The Russian Federation, Ukraine and the Republic of Kazakhstan of all the post-soviet states have developed national legislations. It is natural taking into account the level of space activity development in these states. In the first two states special laws on space activity were passed and they act now. In the Republic of Kazakhstan there is no special law on space activity, however the draft of law is on the stage of preparation. At the same time, there is a number of acts of the Republic of Kazakhstan regulating the space activity in the country.

Conclusion

New independent states formed at the beginning of nineties of the last century as a result of the Soviet Union's dissolution have made effective efforts in order not only to preserve the soviet space industry but also to multiply it, make it different and adapt it to the national interests of economic, social, ecological and technological development. Difficulties arisen at the first stage were caused by a fact that space activity of the former union state was developed on the basis of a united economic complex which was difficult to be divided into parts without destroying the whole mechanism. No of the newly formed states had neither national space legislation, nor a controlling system over the corresponding field. For the last 15 years, those post-soviet states having a considerable part of space infrastructure on their territory managed to dispose it in the best way, to create a system of state regulation for the area, and to develop and improve the national space legislation.

All these states consistently come out in favor of strict observation of the existing international order in the area of Exploration and use of Outer Space. At the same time, they support the idea of progressive development of international space law for the benefits of all nation, peoples, and humankind as the whole.