

# New Policy of Russia in the Area of Utilization of Space Activity Results

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On 14 January 2014 the President of the Russian Federation signed a document named “Keystones of state policy of the Russian Federation in the area of utilization of space activity results in the interests of economic modernization of the Russian Federation and the development of its regions for the period till 2030”. The main specific feature of this political document is the development of a new concept “space activity results” (SAR) which in its broad sense implies products and services created in the course of space activities. The Keystones set forth state interests, principles, purpose, priorities, tasks and stages of implementation of the state policy of Russia in the field of SAR utilization. In particular, the purpose of the Russian policy in the analyzed area stated in clause 10 of the Keystones is as follows: “coordination of activities of the federal executive authorities, executive bodies of administrative subjects of Russia, local authorities, entities of different forms of ownership, in order to ensure the efficient utilization of space activity results in the interests of development of the Russian Federation, its administrative subjects, enhancement of the quality of life and protection of the population”. Among the stipulated tasks the following should be highlighted (clause 7 of the Keystones):

- a) competitive development of the Russian Federation, its administrative subjects;
- b) development of hi-tech and knowledge-intensive sectors of the national economy;
- c) enhancement of the efficiency of state, territorial, regional and sectoral governance;
- d) development of the domestic market of space products and services, including by means of the active involvement of small and medium-size enterprises in the area of utilization of space activity results;
- e) widening of representation of the Russian enterprises in the global space market;
- f) accumulation and use of competitive advantages of the Russian Federation in the field of SAR utilization.

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In order to perform the above tasks and reach the set purpose a whole range of measures is needed, the primary among which being the modification of the existing Russian space legislation, including the 1993 Law “On space activities”<sup>1</sup>. The Basic Principles of SAR utilization set forth the issues to be solved and time frameworks to be observed by the legislator to enhance the national legal regime and replenish its lacunas to ensure the efficiency of national space activities.

## **I. Main Terminology**

The development of the legal regime of utilising space activity results shall be based on a comprehensive and clear terminology. In this connection it is useful first of all to clarify the meaning of the key notions applied in the area of SAR utilisation, namely “space activities”, “space activity results”, “utilisation of space activity results”.

### **Space activities**

The notion of space activities forms the basis of international space law. This term was first used in the UN GA resolution 1721 (XVI) of 1961<sup>2</sup>. The first legally binding act containing the above term was the 1962 Convention for the Establishment of a European Organization for the Development and Construction of Space Vehicle Launchers<sup>3</sup>. However, there is still no generally accepted definition of space activities in international space law, which gives rise to a whole range of legal problems which will be highlighted in the present paper.

Judging by the provisions of the fundamental space treaties, first of all the 1967 Outer Space Treaty<sup>4</sup>, space activities in a broad sense are activities on exploration and exploitation of outer space, including celestial bodies. In theory and practice a space activity is not only that performed in space, but on the Earth as well. In particular, professor A.S. Piradov defines space activities as “activities of humans on exploration and use of outer space (including natural celestial bodies of an extra-terrestrial origin)”<sup>5</sup>. Professor G.P. Zhukov further develops this definition: “space activities are understood as exploration of outer space and celestial bodies, and their exploitation for practical purposes performed with the use of spacecraft”<sup>6</sup>.

However, additional questions arise: which criteria shall be applied to consider on-Earth operations as space activities; which moment can be considered as the beginning and the end of space activities; is it possible to distinguish space-related activities directly or indirectly connected to space activities, etc. For example, professor Zhukov proposes to determine whether there is an inherent link between the activity with the launch and exploitation of a spacecraft or its return to Earth<sup>7</sup>.

The existing legislation of Russia governing the domain of space activities, in particular para. 1 article 2 of the 1993 Law “On space activities” sets forth

some definitions which require additional consideration and interpretation: “space activities shall imply any activities connected with direct operations on the exploration and exploitation of outer space, including the Moon and other celestial bodies”.

The above definition contains the following disputable moments. Firstly, the lawmaker should not use the category “any activities” as this formula is too broad and inevitably entails wide interpretation of this provision, which is not acceptable in the course of practical space activities requiring a definite and predictable legal regulation.

Secondly, the phrase “activities connected with...” broadens even more the framework of the discussed notion, as the lawmaker instead of a direct and unambiguous definition introduces a set of descriptions which are also not desirable in the area of space activities as leading to a greater misunderstanding of the legal implications of space activities.

Thirdly, “direct operations” imply activities in outer space, that is directly in space, setting aside that at present any direction of space activities, every space program and project require preliminary preparations on the Earth and cannot be performed without permanent control from the Earth. Thus, the phrase used in the definition of space activities breaks the evident link of space operations with activities on the Earth transferring the former strictly beyond the Earth atmosphere.

And fourthly, – and this fact requires special attention – the definition of space activities set forth in article 2 of the 1993 Law “On space activities” is specific for this Law only as provided for in the very para. 1 of article 2: “For the purposes of the present Law space activities shall imply...”. That is, the above definition of space activities shall be applied in connection with other provisions of this Law, but it is not compulsory for other legal documents of the legal force equal to that of the 1993 Law (i.e. federal laws and codes of Russia). A similar situation is with legal acts of a stronger legal force, namely the Constitution of the Russian Federation<sup>8</sup>, federal constitutional laws, as well as generally recognised principles and norms of international law and treaties in which the Russia participates. Considering that the three latter categories are a part of the legal system of Russia, as stipulates clause 4 article 15 of the Constitution, and have a priority in application compared to any domestic law provisions<sup>9</sup>, in order to clarify the “space” terminology we should refer to the existing sources of international space law to which the Russian legislation shall conform. And this is – at least at the moment – a vicious circle.

Clause “I” article 71 of the Constitution of the Russian Federation establishes exclusive authority of Russia over “activities in space”, thus excluding this area from the sphere of competence of administrative subjects of the state.

Returning to the definition of space activities introduced by the 1993 Law, it should be expressly mentioned that para. 2 article 2 of the Law enumerates the “main directions of space activities”, which include<sup>10</sup>:

1. space research;

2. use of spacecraft for communication, tele- and radio broadcasting;
3. remote sensing of the Earth from outer space, including state ecological monitoring (state environmental monitoring) and meteorology;
4. use of satellite navigation and geodetic survey systems;
5. manned spaceflight;
6. use of spacecraft, space materials and space technologies in the interests of defence and security of the Russian Federation;
7. monitoring of objects and occurrences in outer space;
8. testing of spacecraft in the outer space environment;
9. production of materials and other products in outer space;
10. other activities performed with the use of spacecraft.

From the point of view of the legal stylistics of the document the phrase “main directions of space activities” is also questionable: as point 10 leaves the list open, it is logical to conclude that such “other activities performed with the use of spacecraft” are attributed to the main directions of space activities, which allows a possibility of existence of “secondary (not main)” directions. Assessing the requirement of using spacecraft we can suggest that such “secondary” space activities can be carried out without using spacecraft – which is in conflict with the initial definition of space activities. The collision of legal provisions becomes evident.

### **Space activity results. Utilisation of space activity results**

The term “space activity results” was first used by professor A.S. Piradov in 1985 in the context of explaining the object of regulation of international space law: “...objects of the ISL are outer space, celestial bodies, cosmonauts, artificial space objects, ground components of space systems, space activity results, space activities”<sup>11</sup>.

The 1978 Convention on the Transfer and Use of Data of Remote Sensing of the Earth from Outer Space<sup>12</sup> distinguishes two separate objects – “remote sensing data” and “information” (clause “b” article I). The former notion covers primary (raw) data obtained by a space object and transmitted for analysis and further processing. The latter one means an end product as a result of processing (decoding and thematic interpretation) of remote sensing data. The question is which of these categories shall be considered as space activity results, or whether both are SAR, primary and secondary ones accordingly.

The definition of SAR is introduced by the abovementioned Keystones of state policy of the Russian Federation in the area of utilization of space activity results (point “a” clause 6 part II): “Space activity results – products and services created in the course of space activities”. The term “utilisation of space activity results” is defined therein as “a purpose-oriented process connected with the acquisition of SAR, their processing, adaptation to consumer demands, and application.

## NEW POLICY OF RUSSIA IN THE AREA OF UTILIZATION OF SPACE ACTIVITY RESULTS

At the same time, the given terms and their definitions have not been reflected in any legally binding act, which, on the one hand, complicates their uniform understanding, interpretation and application in practice, and on the other hand, impedes further development of the legal regulation in the domain of SAR utilization. Taking into account the fact that the concept of SAR is unique for Russia and is has not been used so far in foreign legislations, the Russian lawmakers should consider specific features and demands of the national rocket-and-space production and services, traditions of the Russian space activities and elaborate a uniform legal definition of SAR.

This issue is particularly important in the light of the necessity to solve a problem of authorization (licensing) of activities on SAR utilization (that is, whether this type of activities falls under the general category of space activities).

Evidently enough, the legal definition of space activities analyzed above should be used as a starting point for defining SAR. However, as we have already mentioned, its ambiguous interpretation and heavy wording can hardly simplify the task. Thus, a correct understanding of space activity results directly depends on a precise definition of space activities.

It should be underlined that the 1993 Law “On space activities” was not initially targeted at the field of SAR utilization. Consequently, an efficient way of regulating this new prospective area would be the elaboration and adoption of a specific federal law which would combine all legal developments on the SAR topic and create a single set of norms governing all directions of utilization of space activity results.

## **II. Regulatory Regime of Utilisation of Space Activity Results in the Russian Federation**

At present the legislation of Russia in the area of space activities comprises over 800 regulatory acts of different levels either completely dedicated to space operations or containing particular provisions applicable to the field of exploration, exploitation and use of outer space. The majority of such documents are resolutions of the Government of the Russian Federation, regulatory acts of ministries and agencies, primarily those adopted by the Federal Space Agency.

The hierarchy of the legal documents regulating the area of utilizing space activity results can be presented as follows:

- I. Legislative acts:
  - a. Constitution of the Russian Federation (1993)
  - b. Law of the Russian Federation “On space activities” (1993)
  - c. Federal Law of the Russian Federation “On navigation activities” (2009)
- II. Secondary acts:
  1. Decrees of the President of the Russian Federation:
    - a. Decree of the President of the Russian Federation “On the use

- of the global satellite navigation system GLONASS in the interests of social-economic development of Russia” (2007)
2. Resolutions of the Government of the Russian Federation:
    - a. Resolution of the Government of the Russian Federation “On the equipping of transport, technical means and systems with GLONASS or GLONASS/GPS satellite navigation instrumentation” (2008)
    - b. Resolution of the Government of the Russian Federation “On the procedure for acquisition, use and provision of geospatial information” (2007)
    - c. Resolution of the Government of the Russian Federation “On the approval of the Regulations for planning space survey, acquisition, processing and dissemination of high linear resolution data of remote sensing of the Earth from outer space by “Resurs-DK”-type spacecraft” (2005)
  3. Regulatory acts of ministries and agencies:
    - a. Order of the Ministry of Transportation of Russia “On the equipping of technical means and systems of air navigation service, airspace search and rescue systems with GLONASS or GLONASS/GPS satellite navigation instrumentation” (2010)
    - b. Order of Roscosmos “On the measures to enhance the efficiency of utilization of space activity results in the interests of social-economic development of the Russian Federation and its regions” (2008)
    - c. Order of Roscosmos “On the enhancement of work management in the area of utilization of space activity results” (2008)

The already mentioned Keystones of state policy of Russia in the area of SAR utilization being a single political base for the development of the analysed field of activities set forth the main principles of the Russian policy on utilizing space activity results (clause 9):

- a) provision for a systemic, program-target and infrastructural approaches to utilization of space activity results, creation on their basis of products and services;
- b) combination of public regulation instruments and market mechanisms, promotion of public-private partnership;
- c) creation and development of a competitive environment in the field of SAR utilization, including by means of involving in this sphere small and medium-sized enterprises;
- d) ensuring in accordance with the Russian legislation equitable and free access of legal and physical entities to information resources, space products and services created by budget financing;
- e) rational combination of using Russian and foreign space activity results;

## NEW POLICY OF RUSSIA IN THE AREA OF UTILIZATION OF SPACE ACTIVITY RESULTS

- f) provision for a program-technological independence of Russia in using SAR for solution of a whole variety of tasks, including government of the state, its territories including specially protected areas, of regions, critical, potentially dangerous and socially important infrastructural objects;
- g) implementation of the national geoinformation systems and program-technological platforms as basic tools for solution of state and municipal administration;
- h) protection of state interests of the Russian Federation in the field of utilization of space activity results by ways and means applicable in the framework of international law;
- i) provision for information security of the Russian Federation in the area of utilizing SAR in the process of creation of space products and rendering space services.

Thus, the only comprehensive document in the analyzed domain is a political, non-legally binding act, which cannot replace a comprehensive regulatory regime. In order for the legislative and the executive branches of power to work most efficiently and successfully, such a regime should pursue a principally new approach compared to systematic amending of the 1993 Law “On space activities”. There is a need of a solid hierarchy of acts, whose core would be a federal law on SAR, a need to establish well-ordered interaction of federal executive bodies, set forth their clear obligations and responsibilities for promotion of SAR utilization for the benefit of the state.

### III. Problems and Perspectives of Development of the Regulatory Regime of Utilisation of Space Activity Results in the Russian Federation

Elaboration of the new legal regime of a new sphere of activities requires a right starting point – which undoubtedly will be definition of the regulated subject. Consequently, we return in our analysis to the initial and unresolved so far problem of legal terminology. The eloquent example of various modifications of the notion of space activities given in part I of this paper brings about an even more impressive example – that of the numerous terms related to SAR which already exist in different Russian regulatory acts and conform to the general definition of space activity results given in the 2014 Keystones, for instance:

- “services connected with space activities” (para. 2 article 2 of the Law “On space activities”);
- “services for launch of spacecraft” (1993 Law “On the customs tariff”);
- “goods (works, services) in the area of space activities” (clause 5 para. 1 article 164 of the Tax Code of Russia);
- “goods in the area of space activities, including spacecraft, space objects, space infrastructure objects subject to a mandatory certification in conformity with space legislation of Russia” (*ibidem*);

“state services in the area of space activities” (2004 Regulations of the Federal Space Agency);  
 “works provided for in government contracts for the performance of works (rendering services) under the Federal Space Program, other federal programs in the area of space activities” (2005 Regulations of the Government of the Russian Federation “On the adoption of Rules of extra-budgetary financing of works in the area of space activities”);  
 “services of space transport vehicles” (All-Russian Classifier of Types of Economic Activities, Products and Services OK 004-93);  
 “activity of space transport” (All-Russian Classifier of Types of Economic Activities, Products and Services OK 029-2001);  
 “products (goods, works, services) in the sphere of creation of rocket-and-spacecraft” (2009 Order of the Federal Service of State Statistics of Russia “On the approval of statistical tools for organization by the Federal Space Agency of the federal statistical monitoring of activities of the entities producing goods, works, services in the sphere of creation of rocket-and-spacecraft”);  
 “production of high technologies obtained by space objects functioning in outer space” (article 31 of the Tax Code of Russia);  
 “space survey materials” (Order of the Federal Agency of Geodesy and Cartography of 10 June 2002 № 78-pr “Uniform production standards of geodetic and topographic works. Part II. Cameral works”);  
 “raw and processed materials and data of remote sensing of the Earth (aerial and space survey)” (2000 Resolution of the Government of the Russian Federation “On the adoption of Regulations of the federal cartography and geodetic fund”).

The variety of terms used by the legislator causes ambiguity of the legal regime of the category “space products and services created in the course of space activities” introduced by the Keystones of SAR utilization. The following way might help to find a solution to this problem: all goods, works and services should be divided into two categories:

- 1) goods, works and services created (performed, rendered) *in the course of space activities* – which reflects the whole complex of all possible goods, works and services at different stages of space activities;
- 2) goods, works and services created (performed, rendered) *with the use of space activity results*. Thus, the notion of SAR becomes limited to material outcome of space activities ready for further use.

The first group is already governed by the 2012 Regulations on the licensing of space activities<sup>13</sup>, which distinguishes the following “works performed and services provided in the course of space activities” (Appendix I to the Regulations”:



## NEW POLICY OF RUSSIA IN THE AREA OF UTILIZATION OF SPACE ACTIVITY RESULTS

1. Creation and modernizing of automated spacecraft, manned and unmanned space ships and stations, including orbital, interplanetary, of multiple use, as well as their elements and component parts;
2. Production of automated spacecraft, manned and unmanned space ships and stations, including orbital, interplanetary and of multiple use;
3. Preparation for launch and the launch of automated spacecraft, manned and unmanned space ships and stations, including orbital, interplanetary and of multiple use;
4. Flight control over automated spacecraft, manned and unmanned space ships and stations, including orbital, interplanetary and of multiple use;
5. Creation and modernizing of carrier rockets, other types of launchers of spacecraft into outer space, as well as their elements and component parts;
6. Production and reparation of carrier rockets, other types of launchers of spacecraft into outer space, as well as their elements and component parts;
7. Preparation of carrier rockets, other types of launchers for launch and their launch;
8. Creation and modernizing of rocket engines for spacecraft, as well as their elements and component parts;
9. Production and reparation of rocket engines for spacecraft, as well as their elements and component parts;
10. Testing of rocket engines;
11. Creation, production, reparation and modernizing of instruments and equipment for automated regulation or control, including software and its component parts;
12. Creation (production), modernizing, exploitation and reparation of launch sites, launch complexes, command and measurement complexes, flight control centres and points, data reception, storage and processing points, spacecraft storage bases, test sites for landing of space objects and air strips, experimental base facilities for spacecraft testing, cosmonaut training centres and equipment, as well as their elements and component parts;
13. Preparation of cosmonauts for spaceflight;
14. Medical-biological management of manned spaceflight;
15. Research and experiments with the use of spacecraft;
16. Reception and primary processing of information from Earth remote sensing satellites;
17. Participation in international cooperation of the Russian Federation in the area of exploration and exploitation of outer space for peaceful purposes;
18. Transportation of spacecraft and rocket fuel components;
19. Evacuation of descent modules, separating parts of launchers from impact areas, their disposal, as well as ecological monitoring of launch sites and impact areas.

As to the second big category – goods, works and services created (performed, rendered) *with the use of space activity results* – the lawmaker is still to elaborate on this complicated notion to “legalize” it.

A separate category is state services rendered by Roscosmos to physical and (or) legal entities, namely:

- performance of a state function of licensing of space activities (Order of the Federal Space Agency № 51 of 25 May 2007);
- performance of a state function of expertise of spacecraft creation projects (Order of the Federal Space Agency № 52 of 22 April 2008).

The very name of the “Keystones of state policy of the Russian Federation in the area of utilization of space activity results in the interests of economic modernization of the Russian Federation and the development of its regions for the period till 2030” shows that active application of SAR in practice shall be targeted at resolving the issue of social-economic development of Russia and its numerous regions. The widening and active promotion of the sphere of utilizing SAR is considered as the definitive step towards transition from purely governmental to private space activities. At the regulatory level the prerequisites of space commercialization are being created, in particular, by implementing the following provisions:

- the competence of the Government of Russia covers the performance of state policy in the area of space activities in the interests of science, technology, different economy branches and international cooperation of the Russian Federation;
- the competence of Roscosmos covers the administration of space activities in the interests of science, technology and different branches of the economy;
- Roscosmos organizes and coordinates works on commercial space projects and promotes their performance;
- organizations and citizens participating in the performance of space projects can be granted guarantees and preferences in accordance with the legislation of the Russian Federation.

A good example of such preferences is the Federal Law “On changes to chapter 21 part 2 of the Tax Code of the Russian Federation related to the clarification of implementation of a zero tax rate by taxpayers engaged in activities connected with production and maintenance of the spacecraft”. The amended text of clause 5 para. 1 article 164 of the Tax Code of the Russian Federation imposes a zero tax rate for operations with “goods (works and services) in the sphere of space activity” described above.

#### IV. Conclusions

The above analysis has shown that the Russian legislation in general and in the area of space activities in particular can be considered hierarchical, well-structured and systemised. Taking into account the longstanding legislative traditions of Russia, it is necessary to comply with the selected model of drafting and improvement of legislation in the area of space activities and especially in the area of SAR utilization, which is of the utmost importance under the current conditions of development of the national rocket-and-space industry.

The majority of spacefaring nations, including Russia, are at the stage of commercialization of space activities. Therefore, it is necessary to work out a sufficient legislative framework for stable and confident development of this sphere, taking into account best foreign examples of lawmaking and law enforcement in the area of SAR utilization. Special attention should be paid to the authorization procedure for space and space-related activities that is regulated in much detail in the majority of foreign jurisdictions which is a clear sign of the developing commercialization of space activities. Since the Russian Federation has only started moving in this direction, it is feasible to consider an opportunity of implementing foreign experience of regulation of the authorization procedure related to space operations and the use of space activity results in its various aspects in the legislation of Russia.

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- <sup>1</sup> Law of the Russian Federation № 5663-1 “On space activities”, adopted on 20 August 1993.
  - <sup>2</sup> UNGA Resolution 1721 (XVI) “International cooperation in the peaceful uses of outer space” of 20 December 1961.
  - <sup>3</sup> Convention for the Establishment of a European Organization for the Development and Construction of Space Vehicle Launchers of 29 March 1962 // Krige J., Russo A. *A History of the European Space Agency. Vol. 1 The History of ESRO and ELDO, 1958-1987.* Noordwijk: ESA Publications Division, 2000. P. 81-100.
  - <sup>4</sup> Adopted by the UN GA Resolution 2222 (XXI) of 19 December 1966.
  - <sup>5</sup> *International space law / Chief editor A.S. Piradov.* – Moscow: International Relations Publ., 1985. – P. 34.
  - <sup>6</sup> G.P. Zhukov. *International space law and the challenges of the XXI century (in commemoration of the 50-th anniversary of the first spaceflight by Yuri Gagarin).* – Moscow: People’s Friendship University, 2011. – P. 10.
  - <sup>7</sup> *International space law / Chief editors G.P. Zhukov, Yu.M. Kolosov: International Relations Publ., 1999.* – P. 7.
  - <sup>8</sup> Adopted by a referendum on 12 December 1993 (amended by Laws of the Russian Federation of 30 December 2008 № 6-ФКЗ, of 30 December 2008 № 7-ФКЗ) // *Legislation of the Russian Federation*, 26 January 2009, № 4, p. 445.
  - <sup>9</sup> Except the Constitution itself as the main law of the highest legal force, direct effect and imperative application within all the territory of the state.
  - <sup>10</sup> *International space law does not set forth an exact list of space activities, but rather refers to specific areas. For instance, the Report of the UN COPUOS of 2014 (57<sup>th</sup> session) covers such areas as space applications, space technologies in the interests of social-economic development, remote sensing of the Earth from space and monitoring*

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of the environment, space debris, prevention and mitigation of emergency situations with the use of space systems, global navigation systems, space weather, near-Earth objects, use of nuclear energy resources in outer space.

<sup>11</sup> International space law / Chief editor A.S. Piradov. P. 34.

<sup>12</sup> Concluded in Moscow on 19 May 1978. The USSR signed the Convention on 19 May 1978. The Convention entered into force for the USSR on 21 August 1979. – Compendium of valid treaties, agreements and conventions concluded by the USSR with foreign states. Volume XXXV. – Moscow, 1981. – P. 435-438.

<sup>13</sup> Approved by Resolution of the Government of the Russian Federation of 22 February 2012 № 160.