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The basic purpose of this course of lectures is to give the university students a general introduction to space law, whether they intend to specialize in this legal sphere, or not. The scientific issues of the international legal regulation of states activities in the exploration and use of outer space, including the Moon and other celestial bodies of the Solar system are considered in this course of lectures. Besides, one part of the course is devoted to the issues of normative legal regulating of space activities in the Russian Federation.

The book contains eleven lectures devoted to various aspects of legal statuses of outer space, the Moon and other celestial bodies of the Solar system, a cosmonaut (an astronaut), personnel of a spacecraft, a space object etc. There is also an annex, which consists of several international treaties, governing space activities of the states.

The course of lectures is specially intended for the students of the faculty of law of the Saint Petersburg State University of Aerospace Instrumentation. It can also be recommended to all those who are studying space law.

Contents

Introduction

Lecture 1. The notion of international space law

Lecture 2. The legal status of outer space

Lecture 3. The legal statuses of a cosmonaut (an astronaut) and of the personnel of a spacecraft

Lecture 4. The legal status of a space object

Lecture 5. The legal status of a celestial body of the Solar system

Lecture 6. Liability for damage caused by space objects

Lecture 7. Control activities in international space law

Lecture 8. International organizations on peaceful exploration and use of outer space

Lecture 9. The legal status of the Civil International Space Station

Lecture 10. The legal regulations of some applied kinds of space activities

Lecture 11. The legal regulations of space activities in the Russian Federation

The list of legal acts

Annex

Treaty Banning Nuclear Weapon Tests in the Atmosphere in Outer Space and Under Water

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies

Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched Into Outer Space

Convention on the International Liability for Damage Caused by Space Objects

Convention on Registration of Objects Launched Into Outer Space.

Agreement Governing the Activities of States on the Moon and Other Celestial Bodies

«Mankind will not be staying on the Earth forever, but, chasing after light and space, first of all diffidently will get beyond the atmosphere and then will conquer all adjacent space round the Sun for itself».

K.E. Tsiolkovskiy

Introduction

In all societies the social relations between people are regulated by legal norms contained in various laws. Because of this the social relations, connected with the activities on the exploration and use of outer space, including the Moon and other celestial bodies should be governed by particular norms, which are specially intended for different activities in outer space and on celestial bodies. So the formation of such special legal norms and then their further integration in a new branch of international law are directly connected with the beginning of all activities of mankind in outer space.

International space law, the legal norms of which regulate space activities of states is quite a new juridical sphere. It appeared in the second half of the XX century after space activities had begun all over the world. Nowadays modern international space law is a combination of international legal provisions, containing progressive special normative rules of conduct in outer space and on celestial bodies, including legal restrictions and prohibitions. So the further development of international space law will promote the development of world cosmonautics.

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Lecture 1

The notion of international space law

1. The formation and development of international space law.
2. The definition and the sources of international space law.
3. The branch principles of international space law.

1. The formation and development of international space law

The system of legal provisions which governs space activities is quite a new legal sphere. It appeared in the second half of the XX century after space activities had begun. In the first place it consisted of special legal statements of international law. And finally as a result of the development of international legal provisions a new branch of international law which is called «international space law» was formed.

Let's study the basic stages of its formation and development, and in other words – the history of international space law.

On 4th of October 1957 the first space satellite was launched by the USSR. And after this event the governments of the other states started to realize their own national space programs. So it was the beginning of space activities all over the world. Since that moment it has become necessary to establish a new legal system, which would make possible the regulation of social relations in outer space and on celestial bodies.

On 5th of August 1963 the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (the Nuclear Test Ban Treaty) was signed in Moscow by the governments of the USSR, Great Britain and the USA. Although its regulations were not connected with the interstate relations in outer space only, it was the first interstate agreement containing obligatory rules of conduct in outer space.

On 13th of December 1963 the United Nations General Assembly enacted the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space. Even though this international legal act declared some progressive statements, it did not have an obligatory legal force. This Declaration was permissive rather than mandatory for states - subjects of international law.

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 27th of January 1967 (the Outer Space Treaty) is the fundamental act of international space law. The United Nations General Assembly passed this Treaty on 19th of December 1966. It was open for signing on 27th of January 1967 and entered into force on 10th of October 1967.

It is necessary to point out that the Outer Space Treaty of 1967 includes the list of the legal principles of international space law – one of the branches of international public law. And these principles are legally binding for states taking part in the Outer Space Treaty. All their international and national legal acts about space activities should correspond to the Outer Space Treaty of 1967.

On 19th of December 1967 the United Nations General Assembly passed the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the Rescue Agreement). This Agreement was open for signature on 22nd of April 1968 and it entered into force on 3rd of December 1968.

By statements of this Agreement the legal status of cosmonauts was determined and developed. Besides, the interstate relations on searching and finding out space objects, on rescue and return to appropriate states of these space objects and personnel of a spacecraft were regulated too.

It is necessary to underline, that this Agreement develops the statement of article V of the Outer Space Treaty of 1967, according to which «States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance in the event of accident, distress, or

emergency landing on the territory of another State Party or on the high seas. When astronauts make such a landing, they shall be safely and promptly returned to the State of registry of their space vehicle».

The United Nations General Assembly passed the Convention on the International Liability for Damage Caused by Space Objects on 29th of November 1971 (the Liability Convention). This Convention was open for signing on 29th of March 1972 and it entered into force on 1st of September 1972. This Convention provides that the launching State is liable for damage caused by its space objects on the Earth's surface or to the aircraft in flight and also to space objects of another State or persons or property onboard such objects.

The United Nations General Assembly passed the Convention on Registration of Objects Launched into Outer Space on 12th of November 1974 (the Registration Convention). It was open for signature on 14th of January 1975 and it entered into force on 15th of September 1976. This Convention provides that launching States shall maintain registries of space objects and furnish specified information on each space object launched, for inclusion in a central United Nations Register.

The United Nations General Assembly passed the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies on 5th of December 1979 (the Moon Treaty). It provides that the Moon and its natural resources are «the common heritage of mankind» (par. 1 art. 11) and that an international regime should be established to govern the exploitation of such resources when such exploitation is about to become feasible (par. 7 art. 11). This Agreement was open for signature on 18th of December 1979 and entered into force on 11th of July 1984.

Up to now the Moon Treaty of 1979 has been ratified by nine states: Australia, Austria, Chile, Mexico, the Netherlands, the Philippines, Morocco, Uruguay, and Pakistan. The Moon Treaty was signed but was not ratified by five states: France, India, Romania, Guatemala, and Peru. The USA and Russia are not States Parties of the Moon Treaty.

2. The definition and the sources of international space law

As it was stated above, international space law is the independent branch of international public law. It is a combination of international legal principles, norms and standards, governing the interstate relations, connected with the activities on exploration and use of outer space, including the Moon and other celestial bodies.

Each country in the world has its own national system of law. That is why together with the development of international space law, the national systems of space law appeared and developed too. These legal systems govern the social relations connected with space activities.

For example, at present a new branch of legal system – the Russian Federation space legislation has already passed through its first stages of formation and development.

The Russian Federation space legislation consists of the Law of the Russian Federation on Space Activity, other federal laws, decrees of the President of Russia, Russian Federation governmental regulations and other legal acts governing the space activity realization under the jurisdiction of the Russian Federation.

There are some important differences between international legal acts and legislative acts established by each state individually. The national laws are passed by legislative bodies, most of which have some social and political support. On the other hand, the international legal acts are established as a result of the agreements achieved by the governments.

In international space law, like in international public law, the major types of sources are international treaty and international custom. It is important to point out that the formation of international space law is carried out mainly by passing international treaties.

International treaty is settled by subjects of international law in writing and consists of specific formulations of international legal provisions.

According to the number of states parties, participating in the treaty, the treaties may be either universal or particular.

A universal international treaty is open to all states for signature.

The number of states - participants of a particular treaty is limited. As a rule these treaties govern the interstate relations of two or more states, which can be situated not only in one region but in different parts of the world.

The enforcements of international legal acts are different. Many international agreements are not binding, for example, the United Nations General Resolutions.

All legal provisions of an international treaty are obligatory for each state party, if it is determined in the text of a treaty, and breaking of these legal norms entails legal liability.

International custom is a rule of conduct of subjects of international law, which may be formed as a result of recurrence of uniform actions for a long time. According to paragraph 1 «b» of article 38 of the Statute of the International Court of Justice, international custom is defined as evidence of a general practice accepted as a legal norm.

3. The branch principles of international space law

The principles of international space law are branch principles as they concern the determination of the basic statements of international space law which is one of the branches of international law.

Below is given the list of the branch principles of international space law in accordance with the Outer Space Treaty of 1967.

Let's consider these legal principles:

1. The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.

Outer space shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies (art. I of the Outer Space Treaty).

2. Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means (art. II).

This legal principle of international space law was developed by the provisions of the Moon Treaty of 1979. So, according to article 11 of the Moon Treaty, «the Moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation, or by any other means.

Neither the surface nor the subsurface of the Moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental organization, national organization or non-governmental entity or of any natural person».

3. States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations (art. III of the Outer Space Treaty).

4. The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden.

States Parties to the Treaty undertake not to place in outer space, including the Moon and other celestial bodies, any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner (art. IV).

5. State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on celestial body (art. VIII).

6. States Parties to the Treaty shall bear international responsibility for all national space activities and shall be internationally liable for damage caused by their space objects (art. VI, VII).

7. States Parties to the Treaty shall pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration on them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose (art. IX).

8. States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of another State Party or on the high seas (art. V).

9. All stations, installations, equipment and space vehicles on the Moon and other celestial bodies shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity (art. XII).

10. The promotion of international cooperation in the exploration and use of outer space, including the Moon and other celestial bodies (art. X).

Lecture 2

The legal status of outer space

1. The notion of outer space.
2. The legal problem of air and outer space delimitation.
3. The legal aspects of the demilitarization of space activities.

1. The notion of outer space

The notion of outer space is a basic notion of the whole system of international space law, as the provisions of this branch of international public law govern the interstate relations, connected with the exploration and use of outer space, including the Moon and other celestial bodies. However, there is not any clear definition of outer space in the universal treaties of international space law. Moreover, there is not any legal border between outer space and air space in international law.

The legal matters of using over-ground space had started to be discussed long before the first aircraft was invented. For example, in accordance with the legal rule of ancient Rome, the owner of a piece of land not only owns this piece of land, but also the over-ground space above this piece of land. Then in the Middle Ages, a similar legal principle was formed in Europe: «He, who has a piece of land, owns the air space above this piece of land up to the heavens».

However, air law as a legal system, regulating the social relations, connected with the use of air space was formed after aero-navigation had been developed.

On 13th of October 1919 the Convention, relating to the Regulation of Aerial Navigation was signed in Paris on Versailles Piece Conference (the Paris Convention).

The Paris Convention of 1919 is the first universal interstate treaty, connected with the activities in air space. Because of this 1919 is now regarded as the year of the formation of international air law.

The provisions of this Convention stated the legal principle, according to which a state has sovereignty over the air space above its territory. So, article I of the Paris Convention of 1919 provided that «... every Power has complete and exclusive sovereignty over the air space above its territory». However, the Paris Convention of 1919 did not state the high limit of air space. So the low limit of outer space was not determined either.

On 7th of December 1944 the next universal legal act of international air law – the Convention on International Civil Aviation was signed at Chicago, the USA (the Chicago Convention). Nowadays the Chicago Convention of 1944 is the fundamental universal interstate treaty of the whole system of international air law.

According to article 1 of the Chicago Convention of 1944, «The Contracting States recognize that every state has complete and exclusive sovereignty over the air space above its territory».

Unfortunately like the Paris Convention of 1919, the Chicago Convention of 1944 did not determine the high limit of air space either. Therefore it did not state the high limit, where state sovereignty ends its action.

So, it is obvious, that at that time, i.e. before the beginning of space activities, the provisions of international air law not only determined the legal status of air space, but of the whole over-ground space as well.

On 4th of October 1957 the first space object was successfully launched into Earth orbit by the USSR. After the activities on the exploration and use of outer space, including the Moon and other celestial bodies had begun, the states started concluding the international agreements, regulating space activities. The beginning of space activities was the reason for the formation of a new branch of international public law – international space law, and caused the necessity to divide the whole over-ground space into air space and outer space.

It is important to point out, that it is necessary to divide the whole over-ground space into air space and outer space, because the legal statuses of these two areas have essential differences.

Let's consider these differences:

I. In accordance with the provisions of international air law the whole air space of the Earth is divided into national air space and international air space.

National air space is situated above a state's territory and is under the complete and exclusive sovereignty of an appropriate state.

International air space is situated outside the state air limits and is free for exploration and use. International air space is, in its turn, also divided into air space above the open sea and air space above the overland territories, which are situated beyond the borders of sovereign states (for example - Antarctica).

Outer space is indivisible and free for exploration and use by all states.

II. As it was stated above, outer space, including the Moon and other celestial bodies, is free for exploration and use by all states.

The use of sovereign air space is possible by the authorization of an appropriate state only.

III. It is forbidden to place in orbit around the Earth any objects, carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.

There is not a universal legal ban to place nuclear weapons or any other kinds of weapons of mass destruction in air space.

IV. The exploration and use of outer space shall be carried out for the benefit and in the interests of all countries. However, there is not any state obligation to use air space for the benefit and in the interests of all countries.

V. Each state bears international responsibility for all national space activities, whether such activities are carried on by governmental agencies or by non-governmental entities. So each launching state is internationally liable for the

damage by its space object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies.

But there is not a liability of a state for damage by an aircraft, belonging to a non-governmental entity or to any natural person, if they have a nationality of this state.

VI. In accordance with the Chicago Convention on International Civil Aviation of 1944 there is not any international register for an aircraft. There is only a national registration of an aircraft in international air law.

However, there are both national and international registrations of each launched space object in international space law. So according to articles III and IV of the Registration Convention of 1975, «The Secretary-General of the United Nations shall maintain a Register in which the information furnished in accordance with article IV shall be recorded... Each State of registry shall furnish to the Secretary-General of the United Nations, as soon as practicable, the information, concerning each space object, carried on its registry».

VII. The states have no right to carry out the remote sensing of the territories of other states from their air spaces without a special interstate agreement or authorization. But remote sensing of the whole surface of the Earth from outer space is a legitimate kind of all space activities.

VIII. In the exploration and use of outer space, including the Moon and other celestial bodies, the states conduct all their activities with due regard to the corresponding interests and needs of the developing countries. A provision like this does not exist in international air law.

In this way, the legal notion of outer space may be determined only after the international treaty border between air and outer spaces is formed.

2. The legal problem of air and outer space delimitation

The legal problem of air and outer space delimitation or, differently speaking, the problem of the legal low boundary of outer space is one of the

unsolved problems in international space law. On the one hand it is necessary to provide the action of the legal principle of state sovereignty over the air space above the territory of an appropriate state; on the other hand it is necessary to provide the principle of freedom of exploration and use of outer space by all states as well.

Because of this, scientific disputes concerning the issues of delimitation are still continuing. As a result of such discussions the basic scientific approaches to the delimitation in the international space law doctrine were formed. These are the functional approach and the spatial approach to delimitation.

According to the functional approach to delimitation the concept of outer space has to be defined on the basis of a definition of the concept of space activities, or at any rate in close relation with that term. Reduced to its simplest basis outer space is to begin where space activities can be said to have begun. Part of this school is the theory of a uniform legal regime, which says that both air flights and space flights should be subject to the same rules of law.

The main difference between the spatial approach and the functional approach is that while the former is based on the adoption of certain scientific and technical criteria, for example the gravitational pull of the Earth, lowest perigee of satellite orbits etc, the latter is based on the definition of space objects and their functions or purposes and space activities.

Besides, there were many other approaches to the definition of the legal boundary of outer space. Some of them are presented below:

- 1) The boundary of outer space may be defined by utilizing the characteristics of the atmosphere;

- 2) The boundary of outer space may be established at the altitude where aerodynamic lift yields to centrifugal force, which is also known as the «von Karman jurisdiction line».

However, these discussions did not get any answer to the studied problem in international space law.

The history of international space law shows that the absence of a treaty border between air space and outer space was the reason for the international dispute connected with the adoption of the Declaration of the First Meeting of Equatorial Countries of 1976.

The geostationary orbit is a circular orbit on the Equatorial plane in which the period of sidereal revolution of the satellite is equal to the period of sidereal rotation of the Earth. In this case the satellite moves in the same direction of the Earth's rotation – from the west to the east. When a satellite moves along this particular orbit, it is said to be geostationary; such a satellite appears to be stationary in the sky, when viewed from the Earth, and is fixed on the zenith of a given point of the Equator, the longitude of which is equal to the longitude of the satellite. This orbit is located at an approximate distance of 35.800 kilometers above the Earth's Equator.

From 29th of November till 3rd of December 1976, the equatorial states of Ecuador, Colombia, Brazil, Congo, Zaire, Uganda, Kenya, and Indonesia met in Bogotá, Colombia «with the purpose of studying the geostationary orbit that corresponds to their national terrestrial, sea, and insular territory and considered as a natural resource».

Gabon and Somalia, also equatorial states, were not present. The Declaration of the First Meeting of Equatorial Countries, also known as the Bogotá Declaration, was adopted on 3rd of December 1976. The declaration claimed the right of equatorial states to exercise national sovereignty over the arcs of the geostationary orbit that are directly over their territories. This claim is in apparent contravention to the Outer Space Treaty of 1967, which states that «outer space... is not subject to national appropriation by claim of sovereignty». However, the Bogotá Declaration asserts that «there is no valid or satisfactory definition of outer space» and that the geostationary orbit «must not be considered part of the outer space».

Besides, the Bogotá Declaration of 1976 also said that the lack of definition of outer space in the Outer Space Treaty of 1967, which has already been referred

to, implies that article II should not be applied to the geostationary orbit and therefore does not affect the right of the equatorial states that have already ratified the Treaty.

These claims of equatorial states were rejected by the interstate community as they did not correspond to the Outer Space Treaty of 1967 in general and to the 2nd article of this Treaty, according to which outer space is not subject for national appropriation by any means, in particular.

The legal status of the geostationary orbit is connected with the controversy over the legal definition of outer space. Both issues have been debated in the United Nations Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee for a long time, and they remain on the agenda.

So on 22nd of June 1979 at the 22nd session of the United Nations Committee on the Peaceful Uses of Outer Space the USSR presented the working paper offering to conclude a new intergovernmental agreement. In particular, this working paper contained such basic provisions:

- 1) the boundary between outer space and air space shall be established by agreement among States at an altitude 100-110 km above sea level, and shall be legally confirmed by the conclusion of an international legal instrument of a binding character;

- 2) a space object of any State shall retain the right of peaceful passage over the territory of other States at altitudes lower than the agreed boundary for the purpose of reaching the orbit or returning to the Earth;

- 3) the geostationary orbit is a indefeasible part of the outer space;

- 4) the provisions of the Outer Space Treaty of 1967 shall apply to the geostationary orbit, including the provision of article II, according to which outer space is not subject to national appropriation by any means.

Up to now the legal boundary between air space and outer space has not been established. However, the progress of space technology may make some solution more urgent in coming years.

3. The legal aspects of the demilitarization of space activities

From the first step in the exploration and use of outer space, including the Moon and other celestial bodies, the state governments conducting their national space programs, started considering outer space as a new space sphere both for military activities and for placing there different types of weapons, including weapons of mass destruction.

Nuclear weapon test explosions and other nuclear explosions were carried out in outer space and in high layers of the atmosphere from 1st of August 1958 till 1st of November 1962. During that period of time the USA carried out 9 explosions, while the USSR, in its turn, carried out 5 nuclear explosions in outer space and in high layers of the atmosphere. Apart from this, both the USA and the USSR governments had planned to carry out nuclear explosions on the face side of the Moon in 1958. Fortunately, these plans were not put into practice.

Recognizing the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes, the international progressive community concluded several intergovernmental agreements, relating to the demilitarization of space activities.

Let's consider international legal acts of international space law, which contain the legal norms relating to the problem of the demilitarization:

On 5th of August 1963 the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (the Nuclear Test Ban Treaty) was signed in Moscow. The importance of this treaty is that its article I had banned to carry out any nuclear weapon test explosion, or any other nuclear explosion at any place under the jurisdiction or control of each Party to this Treaty in three natural environments, including outer space.

At the same time the Nuclear Test Ban Treaty of 1963 did not contain a prohibition to place nuclear weapons, or any other kinds of weapons of mass destruction in outer space.

On 27th of January 1967 the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (the Outer space Treaty) was open for signature. This Treaty contains very important and progressive legal provisions, relating to the demilitarization of outer space and celestial bodies. So in accordance with the 1st part of article IV of the Outer Space Treaty of 1967, «States Parties to the Treaty undertake not to place around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner».

It is necessary to point out, that this legal provision of the Outer Space Treaty of 1967 does not forbid the placement of any objects carrying weapons which are not weapons of mass destruction in outer space. Consequently, the international legal regime of the partial demilitarization of outer space in international space law was stated.

However, in conformity with the 2nd part of article IV of the Outer Space Treaty of 1967, the legal regime of the complete demilitarization regarding the Moon and other celestial bodies of the Solar system was formed. So, according to this treaty provision, the Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes.

The establishment of military bases, installations and fortifications, the testing of any types of weapons and the conduct of military maneuvers shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility, necessary for peaceful exploration of the Moon and other celestial bodies shall not be prohibited either.

In connection with this international legal provision it is a very interesting problem subject, which had been considered and discussed by the scientists of the International Institute of Space Law. This subject was about the reciprocal relations between astronauts of different countries – the personnel of space stations on a celestial body in case of war on the Earth among their appropriate states.

As the Outer Space Treaty of 1967 forbids any aggressive activities on celestial bodies, any hostile acts there will be illegal. Moreover, article V of this Treaty stresses, that «in carrying on activities in outer space and on celestial bodies, the astronauts of one State Party shall render all possible assistance to the astronauts of the other States Parties». Therefore, if there is a war among any two states on the Earth, the astronauts - representatives of these belligerent states, being on a celestial body, have to abstain from the hostile acts against the astronauts - representatives of the other state. Besides, as it was stated above, they have to render all possible assistance to the astronauts - representatives of another state if it is necessary.

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies of 1979 (the Moon Treaty) had confirmed and developed the legal regime of the complete demilitarization of the Moon and other celestial bodies of the Solar system. It is necessary to point out, that the Moon Treaty had expanded the space sphere of action of this international legal regime.

So the legal norms of the Moon Treaty of 1979, relating to the Moon, also apply to other celestial bodies within the Solar system. Besides, for the purposes of the Moon Treaty, reference to the Moon includes orbits around or other trajectories to or around it (par. 1 and 2 art. 1 of the Moon Treaty). Therefore, the provisions of the Moon Treaty of 1979 are distributing their legal force not only on the Moon and other celestial bodies, but also to the definite areas of outer space.

The legal regime of the demilitarization of celestial bodies was stated in article 3 of the Moon Treaty of 1979. So in accordance with paragraph 1 of article 3 of the Moon Treaty of 1979, the Moon shall be used by all States Parties exclusively for peaceful purposes. Paragraph 2 of the same article says that any threat or use of force or any other hostile act on the Moon is prohibited. It is likewise prohibited to use the Moon in order to commit any such act or to engage in any such threat in relation to the Earth, the Moon, spacecraft, the personnel of a spacecraft, or man-made space objects.

Concluding the Moon Treaty of 1979, the States Parties had established the obligation not to place in orbit around or other trajectory to or around the Moon objects carrying nuclear weapons or any other kinds of weapons of mass destruction or place or use such weapons on or in the Moon. The legal norms of the Moon Treaty of 1979 forbid the establishment of military bases, installations and fortifications, the testing of any types of weapons and the conduct of military maneuvers on the Moon.

Like the Outer Space Treaty of 1967, the Moon Treaty of 1979 does not prohibit the use of military personnel for scientific research or for any other peaceful purposes. According to the Moon Treaty, the use of any equipment or facility necessary for peaceful exploration and use of the Moon is not prohibited either.

Lecture 3

The legal statuses of a cosmonaut (an astronaut) and of the personnel of a spacecraft

1. The notions of a cosmonaut (an astronaut) and of the personnel of a spacecraft.
2. The international legal regulations of the rescue and return operations of cosmonauts (astronauts).
3. The Code of Conduct for the International Space Station Crew.

1. The notions of a cosmonaut (an astronaut) and of the personnel of a spacecraft

Nowadays the provisions of the universal legal acts of international space law do not contain any clear definition of the legal notion «a cosmonaut» («an astronaut»). Although article V of the Outer Space Treaty of 1967 contains a formulation according to which «States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space», it is impossible to recognize, that this treaty formulation may be accepted as a legal definition of this legal notion.

First of all, it is important to point out, that instead of the term «astronaut», the texts of the international legal acts of space activities in Russian contain the term «cosmonaut».

The analysis of universal international legal acts of space activities shows that the following terms are applied to the persons, taking part in a space flight:

an astronaut - art. V of the Outer Space Treaty of 1967; the title and the preamble of the Rescue Agreement of 1968; art. 10 of the Moon Treaty of 1979;

the personnel (of an object launched into outer space) – art. VII of the Outer Space Treaty of 1967;

the personnel of a spacecraft – art. 1 – 4 of the Rescue Agreement of 1968; a person on the Moon – art. 10 of the Moon Treaty of 1979;

a part of the personnel of a spacecraft – art. 10 of the Moon Treaty of 1979;

the personnel – art. 8, 9, 11, 12 of the Moon Treaty of 1979;

the personnel of a spacecraft or the man-made space objects - art. 3 of the Moon Treaty of 1979;

the scientific and other personnel - art. 6 of the Moon Treaty of 1979;

the military personnel – art. IV of the Outer Space Treaty of 1967; art. 3 of the Moon Treaty of 1979;

the persons on board of a space object – art. III – IV of the Liability Convention of 1972;

the representatives of the other States Parties to the Treaty – art. XII of the Outer Space Treaty of 1967;

the missions – art. 6 of the Moon Treaty of 1979;

the expeditions – art. 6 of the Moon Treaty of 1979;

a human – art. 12 of the Moon Treaty of 1979.

None of the treaty articles considered above contains any definition of all terms used in these acts.

Therefore, modern international space law recognizes every person, taking part in a space flight as a cosmonaut (an astronaut) and gives all of them the identical legal status irrespective of their professional membership and kind of activities in outer space. However, it is impossible to admit such state of things as a legally correct statement.

For example, article 10 of the Moon Treaty of 1979 says, that «States Parties ... shall regard any person on the Moon as an astronaut within the meaning of article V of the Treaty on Principles Governing the Activities of States on the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, and as part of the personnel of a spacecraft within the meaning of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space».

Today, at the present stage of the development of space activities it has become necessary to define the legal differences among the cosmonauts (astronauts) as parts of the personnel of a spacecraft and other persons, which are on board a spacecraft.

So, the term «the other persons on board a spacecraft» may cover the space tourists, the passengers of a transport spacecraft, which are going to a place of destination, connected with their professional activities in outer space or on a celestial body. At that time, all of them are not parts of the personnel of a transport spacecraft.

It is obvious, that the legal status of a cosmonaut (an astronaut) has to include three necessary legal provisions, which would distinguish between the professional cosmonauts (astronauts) and other persons on board the spacecraft.

In the first place, the legal status of a cosmonaut (an astronaut) has to presume conducting of the professional activity, connected with the exploration and use of outer space, including the Moon and other celestial bodies.

In the second place, the legal status of a cosmonaut (astronaut) has to suggest the definite space areas of his (or her) professional activity. Such space areas are outer space and a celestial body.

In the third place, the necessary part of the legal status of a cosmonaut (an astronaut) is the legality of conducted space activity. Only the legality of space activity gives a person, taking part in a space flight, the right to use all international legal privileges of a cosmonaut (an astronaut).

Like the notion «a cosmonaut» («an astronaut»), the notion «personnel of a spacecraft» does not have a legal definition in universal international legal acts of space activities. In spite of this, the notion «personnel of a spacecraft» may be determined in the doctrine of international space law in the following way: «The personnel of a spacecraft are the party of cosmonauts (astronauts), including those who are piloting, controlling and servicing their spacecraft, as well as persons on board, conducting scientific research and experiments, in accordance with the flight program in outer space or on a celestial body».

In particular, article 11 of the Agreement Concerning Cooperation on the Civil International Space Station of 29th of January 1998 states: «Each partner has the right to provide qualified personnel to serve on an equitable basis as Space Station crewmembers».

However, it is important to point out that there is the definition of the crewmember of the International Space Station in the Code of Conduct for the International Space Station Crew. So in pursuance with paragraph «C» («definitions») of this particular legal act, for the purposes of the Code of Conduct for the International Space Station Crew, «the term "International Space Station crewmembers" means any person approved for flight to the International Space Station, including both the International Space Station expedition crew and visiting crew, beginning upon assignment to the crew for a specific and ending upon completion of the post-flight activities related to the mission».

2. The international legal regulations of the rescue and return operations of cosmonauts (astronauts)

Article V of the Outer Space Treaty of 1967 establishes the obligation of the States Parties to the Treaty to render to the cosmonauts (astronauts) «all possible assistance in the event of accident, distress, or emergency landing on the territory of another State Party, or on the high seas». In accordance with this legal norm, «When astronauts make such a landing they shall be safely and promptly returned to the State of registry of their space vehicle».

More detailed development of this legal provision was presented by the legal norms of the Agreement on the Rescue the Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space of 22nd of April 1968 (the Rescue Agreement of 1968).

So, according to article 3 of the Rescue Agreement of 1968, «If information is received or it is discovered that the personnel of a spacecraft have alighted on the high seas or in any other place not under the jurisdiction of any

State, those Contracting Parties which are in position to do so shall, if necessary, extend assistance in search and rescue operations for such personnel to assure their speedy rescue». They shall inform the launching authority and the Secretary-General of the United Nations of the steps they are taking and their progress.

The provision of article 4 of the Rescue Agreement of 1968 says that «if, owing to accident, distress, emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party or have been found on the high seas or in other place not under the jurisdiction of any State, they shall be safely and promptly returned to representatives of the launching authority».

It is necessary to point out that the term «launching authority» shall refer to any state, responsible for launching. Besides, this term may also refer to an international intergovernmental organization responsible for launching, if that organization declares its acceptance of the rights and obligations provided for in the Rescue Agreement of 1968, and a majority of the states members of this organization are Contracting Parties both to the Rescue Agreement of 1968 and to the Outer Space Treaty of 1967 (art. 6 of the Rescue Agreement of 1968).

It is definite that in case of any accident, distress, emergency or unintended landing, the personnel of a spacecraft will be trying to inform the authority of a launching state by sending a radio-message. As a rule, such radio-messages will be received by a radio-station of an appropriate state. However, on another occasions these radio-signals may be received by the radio-stations of other countries earlier, than by the radio-stations of a launching state. In connection with this, article 25 of the International Convention on Electric Telecommunication of 1973 states that international services of electric telecommunication have to let the absolute priority to all messages of the electric communication connected with the issues of safety of human life on the sea, on the Earth, in air space or in outer space. Article 36 of the same convention obliges all radio-stations of the world to receive such radio-messages and immediately to take all necessary and possible measures towards the providing of a rescue operation.

It is important, that each state, which receives such information, should be obliged:

a) to notify the launching authority of these signals, or if a state of registry is impossible to be identified and a launching authorities can not be immediately communicated with, to make a public announcement immediately by all appropriate means of communication at its disposal;

b) to notify the Secretary-General of the United Nations, who should disseminate the information without delay by all appropriate means of communication at his disposal.

3. The Code of Conduct for the International Space Station Crew

At the present stage of the development of world cosmonautics the Civil International Space Station is the main international space program with man on board.

This international project is realized on the basis of the intergovernmental Agreement Concerning Cooperation on the Civil International Space Station of 29th of January 1998. The States Parties to this Agreement are Canada, the Member States of the European Space Agency, Japan, the Russian Federation and the United States of America.

In order to provide for the safe operation, maintenance of order, and proper conduct of crew aboard the International Space Station, the Agreement Concerning Cooperation on the Civil International Space Station of 1998, which establishes and governs the International Space Station, required the development and approval of the Code of Conduct for International Space Station Crew. Pursuant to article 11 of this Agreement, each International Space Station partner is obliged to ensure that crewmembers which it provides observe the Code of Conduct.

So, after the Agreement Concerning Cooperation on the Civil International Space Station of 1998 had been signed, the governmental space agencies of the States Parties: the Canadian Space Agency, the European Space Agency, the

National Aeronautics and Space Administration of the USA and the Russian Space Agency (at present – the Federal Space Agency) created together the Code of Conduct for the International Space Station Crew.

On 27th of October 2000 the Code of Conduct for the International Space Station Crew was approved in accordance with edict № 1522-r of the Government of the Russian Federation.

The provisions of the Code of Conduct for the International Space Station Crew stress that the partners have developed and approved this Code in order

to establish a clear chain of command on-orbit;

to establish a clear relationship between ground and on-orbit management;

to establish a management hierarchy;

to set forth standards both for work and activities in space, and on the ground;

to establish responsibilities with respect to elements and equipment;

to set forth disciplinary regulations;

to establish physical and information security guidelines;

to define the authority and responsibility of the Commander of the International Space Station, on behalf of all the partners, to enforce safety procedures, physical and information security procedures and crew rescue procedures for the International Space Station.

The Code of Conduct for the International Space Station Crew sets forth the standards of conduct applicable to all crewmembers of the International Space Station during preflight, on-orbit, and post-flight activities, (including launch and return phases).

Responsibilities of the crewmembers of the International Space Station

The crewmembers of the International Space Station shall comply with the Code of Conduct for the International Space Station Crew. Accordingly, during preflight, on-orbit, and post-flight activities, they shall comply with the orders of

the Commander of the International Space Station, all Flight and program Rules, operational directives, and management policies, as applicable.

Crewmembers' conduct shall be such as to maintain a harmonious and cohesive relationship among the crewmembers of the International Space Station and an appropriate level of mutual confidence and respect through an interactive, participative, and relationship-oriented approach which duly takes into account the international and multicultural nature of the crew and mission.

No crewmember shall, by his (or her) conduct, act in a manner which results in or creates the appearance of:

- 1) giving undue preferential treatment to any person or entity in the performance of activities of the International Space Station; and/or
- 2) adversely affecting the confidence of the public in the integrity of, or reflecting unfavorably in a public forum on, any partner, partner state or Cooperating Agency.

The crewmembers of the International Space Station shall protect and conserve all property to which they have access for the activities. They shall refrain from any use of their position that is motivated, or has the appearance of being motivated, by private gain, including financial gain, for himself (or herself) or other persons or entities.

Each crewmember may carry and store mementos, including flags, patches, insignia, and similar small items of minor value, onboard the International Space Station, for his (or her) private use.

Disciplinary Regulations

All crewmembers of the International Space Station will be subject to the disciplinary policy developed and revised as necessary by the Multilateral Crew Operations Panel and approved by the Multilateral Coordination Board.

The disciplinary policy is designed to maintain order among the crewmembers of the International Space Station during preflight, on-orbit and

post-flight activities. The disciplinary policy is administrative in nature and is intended to address violations of the Code of Conduct for the International Space Station Crew.

Authority and Responsibilities of the Commander of the International Space Station

The Commander of the International Space Station, as a crewmember of the International Space Station, is subject to the standards detailed elsewhere in the Code of Conduct for the International Space Station Crew.

The Commander of the International Space Station will seek to maintain a harmonious and cohesive relationship among the crewmembers and an appropriate level of mutual confidence and respect through an interactive, participative, and relationship-oriented approach which duly takes into account the international and multicultural nature of the crew and mission.

The Commander of the International Space Station is the leader of the crew and is responsible for forming the individual crewmembers of the International Space Station into a single, integrated team. During preflight activities, the Commander, to the extent of his (or her) authority, leads the crewmembers of the International Space Station through the training curriculum and mission-preparation activities and seeks to ensure that the crewmembers are adequately prepared for the mission, acting as the crew's representative to the International Space Station program's training, medical, operations, and utilization authorities.

During post-flight activities, the Commander of the International Space Station coordinates as necessary with these authorities to ensure that the crewmembers complete the required post-flight activities.

During On-Orbit Operations the Commander of the International Space Station is responsible for and will, to the extent of his (or her) authority and the on-orbit capabilities of the International Space Station, accomplish the mission

program implementation and ensure the safety of the crewmembers and the protection of the International Space Station elements, equipment, or payloads.

The main responsibilities of the Commander of the International Space Station are:

1) to conduct operations in or on the International Space Station as directed by the Flight Director and in accordance with the Flight Rules, plans and procedures;

2) to direct the activities of the crewmembers of the International Space Station as a single, integrated team to ensure the successful completion of the mission;

3) fully and accurately to inform the Flight Director, in a timely manner, of the vehicle configuration of the International Space Station, status, commanding, and other operational activities on-board (including off-nominal or emergency situations);

4) to enforce procedures for the physical and information security of operations and utilization data;

5) to maintain order;

6) to ensure crew safety, health and well-being including crew rescue and return; and

7) to take all reasonable action necessary for the protection of the International Space Station elements, equipment, or payloads.

During all phases of on-orbit activity, the Commander of the International Space Station, consistent with the authority of the Flight Director, shall have the authority to use any reasonable and necessary means to fulfill his or her responsibilities.

This authority extends to:

1) the elements, equipment, and payloads of the International Space Station;

2) the crewmembers of the International Space Station;

3) activities of any kind occurring in or on the International Space Station;
and

4) data and personal effects in or on the International Space Station where necessary to protect the safety and well-being of the crewmembers and the elements, equipment, and payloads of the International Space Station.

Any matter outside the authority of the Commander of the International Space Station shall be within the purview of the Flight Director.

Issues regarding the Commander's use of such authority shall be referred to the Flight Director as soon as practicable, who will refer the matter to appropriate authorities for further handling. Although other crewmembers of the International Space Station may have authority over and responsibility for certain elements, equipment, payloads, or tasks, the Commander remains ultimately responsible, and solely accountable, to the Flight Director for the successful completion of the activities and the mission.

The Commander, working under the direction of the Flight Director and in accordance with the Flight Rules, is responsible for conducting on-orbit operations in the manner best suited to the effective implementation of the mission.

The Commander of the International Space Station, acting on his (or her) own authority, is entitled to change the daily routine of the crewmembers where necessary to address contingencies, perform urgent work associated with crew safety and the protection of the elements, equipment or payloads, or conduct critical flight operations.

Otherwise, the Commander of the International Space Station should implement the mission as directed by the Flight Director. Specific roles and responsibilities of the Commander of the International Space Station and the Flight Director are described in the Flight Rules. The Flight Rules outline decisions planned in advance of the mission and are designed to minimize the amount of real-time discussion required during mission operations.

Lecture 4

The legal status of a space object

1. The legal notion of a space object.
2. The national and international registrations of a space object.
3. The jurisdiction and control over a space object; the ownership of a space object.

1. The legal notion of a space object

From the first step, it is necessary to point out that the legal notion «a celestial body» covers the natural objects, which are within outer space, as for example the Moon, the Mars, the Venus, the Jupiter etc. At the same time the term «a space object» suggests a man-made technical object, which is intended for exploration of outer space, including the Moon and other celestial bodies.

Though an attempt to determine the notion «a space object» has already been undertaken in international space law nowadays there is not its clear legal definition in this legal sphere. So, article I of the Liability Convention of 1972 and article I of the Registration Convention of 1975 contain similar legal formulations. They state, that «the term “space object” includes component parts of a space object as well as its launch vehicle and parts thereof».

It is important to note that according to this legal norm the notion of a space object suggests not only its various functioning differences, but also all the man-made objects which are within outer space, even those, which ceased their functioning or were smashed to pieces. Because of this, this notion covers space litter too. Therefore, it is impossible to recognize this legal provision as a correct legal definition of the notion «a space object».

Various legal norms of international space law contain the following terms, regarding a space object:

a space vehicle;

- an object launched into outer space;
- an object landed or constructed on a celestial body;
- the component parts (of objects launched into the outer space, including objects landed or constructed on a celestial body);
- the stations, installations, equipment and space vehicles on the Moon and other celestial bodies;
- a spacecraft;
- a space object;
- the component parts (of a space object);
- a manned station on the Moon;
- an unmanned station on the Moon, etc.

As a rule, the term «a space object» is used as a general term in international space law, as it covers all the particular terms which were considered above in this paragraph.

Before we pass over to the next paragraph of this lecture, it is necessary to note, that constant development of world cosmonautics is a reason for new kinds of space objects to appear from time to time. Because of this a new international legal status for such modern space objects is being formed in international space law.

For example, the permanently inhabited Civil International Space Station was formed in accordance with the Agreement among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation and the Government of the United States of America, Concerning Cooperation on the Civil International Space Station, signed on 29th of January 1998.

Such permanently inhabited space stations differ from ordinary piloted space objects by three basic distinguishing features:

- 1) longer period of active functioning;
- 2) presence or possibility of presence of periodically changed personnel and transport system of material and technical supply and service;

3) larger circle of tasks which can be solved by the personnel of the station.

Besides, the provisions of modern international space law establish the types of space objects which can be created in the future of cosmonautics. So paragraph 1 of article 9 of the Moon Treaty of 1979 confirms that «States Parties may establish manned and unmanned stations on the Moon».

2. The national and international registrations of a space object

The legal procedure of the registrations of a space object is a very important problem in international space law. The mandatory system of registering objects launched into outer space, in particular, assists in the identification of space objects and contributes to the application and development of international space law, governing the exploration and use of outer space.

The registrations of a space object are regulated by the Registration Convention of 1975. So according to paragraph «C» of the 1st article of this Convention, a state of registry is a launching state on whose registry a space object is carried. This Convention regulates both the national and international registrations of a space object.

So first of all let's study the definition of the notion «*a launching state*» in international space law.

Article I of the Liability Convention of 1972 determines that «the term “launching State” means: a State which launches or procures the launching of a space object; a State from whose territory or facility a space object is launched». Article I of the Registration Convention of 1975 contains the same legal provision.

In this way, there are 4 kinds of states, taking part in a space launch of an object in the international space law:

- 1) a state which launches a space object;
- 2) a state which procures the launching of a space object;
- 3) a state from whose territory a space object is launched;

4) a state from whose facility a space object is launched.

Consequently, according to the considered provisions of the space law, all these states have the international legal status of a launching state.

The national registration of a space object

The national registration of a space object is conducted in the following way: according to paragraph 1 of the 2nd article of the Registration Convention of 1975, when a space object is launched into Earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain. Each launching State shall inform the Secretary-General of the United Nations of the establishment of such a registry.

It is necessary to point out that the contents of each registry and the conditions under which it is maintained shall be determined by the State of registry concerned (par. 4 art. II).

As it is stated in the 2nd paragraph of article II of this Convention, in case «there are two or more launching States in respect of any such space object, they shall jointly determine which one of them shall register the object».

The registration of a space object launched into outer space is conducted by the Federal Space Agency in the Russian Federation. So, in accordance with item 5.3.17 of the Regulations of the Federal Space Agency of the Russian Federation of 26th of June 2004, this government space agency maintains the registry of space objects launched in Russia.

Then a state of registry furnishes to the Secretary-General of the United Nations necessary information concerning each space object carried on its registry. The Registration Convention of 1975 requires that each state of registry should be obliged to furnish such information to the Secretary-General of the United Nations as soon as practicable.

The international registration of a space object

The international registration of a space object is conducted by the Secretary-General of the United Nations. So, the Secretary-General maintains a Register in which the information about space objects furnished by each launching state is recorded.

According to article IV of the Registration Convention of 1975, each state of registry shall furnish to the Secretary-General of the United Nations the following information:

- a) name of launching State or States;
- b) an appropriate designator of the space object or its registration number;
- c) date and territory or location of launch;
- d) basic orbital parameters, including:
 - i) nodal period,
 - ii) inclination;
 - iii) apogee;
 - iv) perigee;
 - v) general function of the space object.

Besides, in correspondence with paragraph 2 of article IV of the Registration Convention of 1975, «each State of registry may, from time to time, provide the Secretary-General of the United Nations with additional information, concerning a space object carried on its registry».

Each state of registry also notifies the Secretary-General of the United Nations, to the greatest extent feasible and as soon as practicable of space objects concerning which it has previously transmitted information, and which have been but no longer are in Earth orbit (par. 3 of art. IV).

It is necessary to point out, that whenever a space object launched into the outer space is marked with the designator or registration number, or both, the state of registry shall notify the Secretary-General of this fact when submitting the

information regarding the space object. In such case, the Secretary-General of the United Nations shall record this notification in the Register.

In practice the procedure of national and international registrations of a space object launched into outer space looks as follows: first of all a launching state registers a space object by means of an entry in an appropriate registry. The information relating any launch of a space object is reported by a state of registry in letters addressed to the name of the Secretary-General of the United Nations. Then such information is recorded in the Register, which is maintained at the Department on Space of the United Nations Secretariat. Copies of these letters are sent to all the members of the United Nations. Besides, the United Nations Secretariat publishes a special series of information, presented by a state of registry, concerning the establishment of such a registry.

3. The jurisdiction and control over a space object; the ownership of a space object

There is the notion «jurisdiction and control» over a space object in international space law. The legal term «jurisdiction and control» suggests the right of a state of registry to apply its legislative, executive and judicial power regarding a space object and the personnel thereof while in outer space or on a celestial body.

Legal basis of jurisdiction and control over a space object was established by article VIII of the Outer Space Treaty of 1967. This article says, that «a State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body». In accordance with the same article, ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a celestial body or by their return to the Earth. Such space objects or component parts found beyond the limits of the state of

registry shall be returned to the appropriate state, which shall, upon request, furnish identifying data prior to their return.

The Rescue Agreement of 1968 establishes the state obligation to return objects launched into outer space or their component parts to its launching state.

The international legal regulations of return of cosmonauts were considered in the 3rd lecture. So it is necessary to pay attention to the difference between a return of the personnel of a spacecraft and a return of a space object in the Rescue Agreement of 1968.

So the state obligation to return the cosmonauts is unconditional. In accordance with the Rescue Agreement of 1968 the launching authorities are not obliged to bear the expenses incurred as a result of rescue and return of the personnel of a spacecraft. At the same time, the state obligation to return a space object to its launching authority is not unconditional.

For return of its space object a state of registry is obliged:

- 1) to appeal with request for return of a space object to a state, which assured search and rescue operations of this space object;
- 2) to furnish upon request identifying data prior to return.

Expenses incurred in fulfilling obligations to recover and return a space object, or its component parts, are born by the launching authority.

Lecture 5

The legal status of a celestial body of the Solar system

1. The notion of a celestial body in international space law.
2. International legal regulations of space activities in the exploration and use of the Moon and other celestial bodies.

1. The notion of a celestial body in international space law

Various legal acts of modern international space law contain the term «a celestial body». In spite of this, none of them gives a clear definition of this legal notion. However, «a celestial body» is a very important legal notion of the whole system of international space law. Therefore, this state of things presents a significant unsolved problem of space law.

So we shall consider some of the provisions of international space law concerning this legal notion.

As it is established in paragraph 1 of the 1st article of the Moon Treaty of 1979 «the provisions of this Agreement relating to the Moon shall also apply to other celestial bodies within the Solar system, other than the Earth, except in so far as specific legal norms enter into force, with respect to any of these celestial bodies». The 3rd paragraph of the same article states, that «this Agreement does not apply to extraterrestrial materials which reach the surface of the Earth by natural means».

In this way, according to the Moon Treaty of 1979 all the extraterrestrial materials which are in outer space within the Solar system may be determined as a celestial body. However, it is impossible to recognize this way of definition of the legal notion of a celestial body as a juridical correct one.

There are a great many natural objects of different sizes, densities and masses all over interplanetary outer space. All the extraterrestrial materials within

the Solar system, except the Sun, may be divided into seven groups, the list of which is given below:

1. planets;
2. planet satellites;
3. asteroids, or in other words planetoids, or small planets;
4. comets;
5. meteors, or differently speaking meteoric bodies;
6. interplanetary dust;
7. interplanetary gas.

Following the given above way of the definition of a celestial body, it is necessary to refer all these kinds of the extraterrestrial materials to celestial bodies. But this approach to such definition should be regarded as rather astrophysical, than juridical. So, the legal definition of the notion «a celestial body» has to be properly formed and developed in contemporary international space law.

Article II of the Outer Space Treaty of 1967 forbids any national appropriation of the Moon and other celestial bodies. Article 11 of the Moon Treaty of 1979 contains the same legal provision as well. So, according to paragraph 3 of article 11 of the Moon Treaty of 1979, «neither the surface nor the subsurface of the Moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or non-governmental organization, national organization or non-governmental entity or of any natural person. The placement of personnel, space vehicle, equipment, facilities, stations and installations on or below the surface of the Moon, including structures connected with its surface or subsurface, shall not create a right of ownership over the surface or the subsurface of the Moon or any areas thereof».

At the same time, in accordance with paragraph 2 of article 6 of the Moon Treaty of 1979, «in carrying out scientific investigations and in furtherance of the provisions of this Agreement, the States Parties shall have the right to collect on and remove from the Moon samples of its mineral and other substances. Such

samples shall remain at the disposal of those States Parties which caused them to be collected and may be used by them for scientific purposes».

Consequently, states have the right to collect and use the natural resources of planets and satellites of planets for scientific and other purposes in unlimited quantities. In this context it is important to note, that nowadays international space law does not prohibit the use of the natural resources of the Moon and other celestial bodies for economic purposes.

However, it is necessary to point out, that the total and absolute utilization of any small celestial body (for example, an asteroid, or a comet) could be regarded as its appropriation by means of use. But, as it was stated above, both article II of the Outer Space Treaty of 1967 and article 11 of the Moon Treaty of 1979 forbid any national appropriation of a celestial body. Such space activity of a state would be illegal.

In connection with all that has been said above, a special intergovernmental treaty should be concluded by the interstate community, which would state the legal gradation of all extraterrestrial materials within outer space. According to this international treaty the legal status of a celestial body should cover the big-size natural objects: planets, their satellites as well as the largest asteroids.

At the same time small asteroids, comets and other similar space bodies with a lack of gravitation can be regarded as the natural resources of outer space. For these space materials a special legal regime should be formed, which would suggest the total use of this materials by all the states.

2. International legal regulations of space activities in the exploration and use of the Moon and other celestial bodies

The basis of the international legal regime of a celestial body was established by the Outer Space Treaty of 1967. So this Treaty states the list of the legal principles of the space activities, concerning the exploration and use of the Moon and other celestial bodies.

Let's study these legal provisions of international space law:

I. The exploration and use of the Moon and other celestial bodies shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind (part 1 art. I).

II. The Moon and other celestial bodies shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies (part 2 art. I).

III. There shall be freedom of scientific investigation on the Moon and other celestial bodies, and States shall facilitate and encourage international cooperation in such investigation (part 3 art. I).

IV. The Moon and other celestial bodies are not subjects to national appropriation by claim of sovereignty, by means of use or occupation or by any other means (art. II).

V. States Parties to the Treaty shall carry on activities in the exploration and use of the Moon and other celestial bodies in accordance with international law, including the Charter of the United Nations, in the interests of maintaining international peace and security and promoting international cooperation and understanding (art. III).

VI. The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall not be prohibited either (part 2 art. IV).

VII. States Parties to the Treaty shall bear international responsibility for all national activities on the Moon and other celestial bodies, whether such

activities are carried on by governmental agencies or by non-governmental entities (art. VI).

VIII. A launching state is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by a space object or its component parts on the Moon and other celestial bodies (art. VII).

IX. In carrying on activities on the Moon and other celestial bodies, the astronauts of one State Party shall render all possible assistance to the astronauts of other States Parties (part 2 art. V).

X. States Parties to the Treaty shall immediately inform the other States Parties to the Treaty or the Secretary-General of the United Nations of any phenomena they discover on the Moon and other celestial bodies, which could constitute a danger to the life or health of astronauts (part 3 art. V).

XI. A State Party to the Treaty, on whose registry a space object is carried, shall retain jurisdiction and control over such object and over any personnel thereof, while on a celestial body (art. VIII).

XII. The ownership of objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence on a celestial body or by their return to the Earth (art. VIII).

XIII. In the exploration and use of the Moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of cooperation and mutual assistance and shall conduct all their activities on the celestial bodies with due regard to the corresponding interests of all other States Parties to the Treaty (art. IX).

XIV. States Parties to the Treaty shall pursue studies of the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination (art. IX).

XV. All stations, installations, equipment and space vehicles on the Moon and other celestial bodies shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity.

Such representatives shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal operations in the facility to be visited (art. XII).

A more detailed development of international legal regulations of space activities in the exploration and use of the Moon and other celestial bodies was presented later by the legal provisions of the Moon Treaty of 1979.

In particular, *the Moon Treaty of 1979 states the following legal rules of space activities on the Moon:*

The Moon shall be used by all States Parties exclusively for peaceful purposes (par. 1 art. 3). Any threat or use of force or any other hostile act or threat of hostile act on the Moon is prohibited. It is likewise prohibited to use the Moon in order to commit any such act or to engage in any such threat in relation to the Earth, the Moon, spacecraft, the personnel of spacecraft, or man-made space objects (par. 2 art. 3).

Like the Outer Space Treaty of 1967, the Moon Treaty of 1979 contains requirement not to place in orbit around or other trajectory to or around the Moon objects, carrying nuclear weapons or any other kinds of weapons of mass destruction or place or use such weapons on or in the Moon (par. 3 art. 3). Besides, this article forbids the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on the Moon (par. 4 art. 3).

There shall be freedom of scientific investigation on the Moon by all States Parties without discrimination of any kind, on a basis of equality and in accordance with international law (par. 1 art. 6).

States Parties may establish manned and unmanned stations on the Moon. A State Party establishing a station shall use only that area which is required for the needs of the station (par. 1 art. 9).

It is necessary to point out, that in accordance with paragraph 1 of article 11 of the Moon Treaty of 1979, «the Moon and its natural resources are the

common heritage of mankind». Paragraph 2 of the same article states: «the Moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation or by any other means».

As it was stated above, according to paragraph 3 of article 11 of the Moon Treaty of 1979, «neither the surface nor the subsurface of the Moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or non-governmental organization, national organization or non-governmental entity or of any natural person. The placement of personnel, space vehicle, equipment, facilities, stations and installations on or below the surface of the Moon, including structures connected with its surface or subsurface, shall not create a right of ownership over the surface or the subsurface of the Moon or any areas thereof».

The 4th paragraph of article 11 says, that «States Parties have the right to exploration and use of the Moon without discrimination of any kind, on a basis of equality and in accordance with international law and the provisions of this Agreement».

Paragraph 5 of article 11 contains a legal provision, according to which «States Parties to this Agreement hereby undertake to establish an international regime, including appropriate procedures, to govern the exploitation of the natural resources of the Moon as such exploitation is about to become feasible».

As it is stated in paragraph 6 of article 11, «in order to facilitate the establishment of the international regime referred to in paragraph 5 of this article, States Parties shall inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of any natural resources they may discover on the Moon».

Paragraph 7 of article 11 of the Moon Treaty explains the main purposes of the international regime of the exploitation of the natural resources of the Moon:

- a) The orderly and safe development of the natural resources of the Moon;
- b) The rational management of those resources;

- c) The expansion of opportunities in the use of those resources;
- d) An equitable sharing by all States Parties in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of the Moon, shall be given special consideration.

Article 8 of the Moon Treaty of 1979 establishes that States Parties may pursue their activities in the exploration and use of the Moon anywhere on or below its surface. For these purposes States Parties may, in particular:

- a) Land their space objects on the Moon and launch them from the Moon;
- b) Place their personnel, space vehicles, equipment, facilities, stations and installations anywhere on or below the surface of the Moon.

According to this article, personnel, space vehicles, equipment, facilities, stations and installations may move or be moved freely over or below the surface of the Moon.

Article 5 of the Moon Treaty of 1979 states the rules of notification the Secretary-General of the United Nations as well as the public and the international scientific community of the activities concerned with the exploration and use of the Moon. Information on the time, purposes, locations, orbital parameters and duration shall be given in respect of each mission to the Moon as soon as possible after launching, while information on the results of each mission, including scientific results, shall be furnished upon completion of the mission (par. 1 art. 5).

In the case of a mission lasting more than sixty days, information on conduct of the mission including any scientific results shall be given periodically, at thirty-day intervals. For missions lasting more than six months, only significant additions to such information need be reported.

Paragraph 3 of article 5 of the Moon Treaty contains a legal requirement, according to which in carrying out space activities «States Parties shall promptly inform the Secretary-General, as well as the public and the international scientific community, of any phenomena they discover in outer space, including the Moon,

which could endanger human life or health, as well as of any indication of organic life».

It is necessary to point out, that paragraph 3 of article 7 of the Moon Treaty of 1979 states the legal opportunity to designate the areas of the Moon having special scientific interest as international scientific preserves for which special protective arrangements are to be agreed upon in consultation with the competent bodies of the United Nations.

Lection 6

Liability for damage caused by space objects

1. The notion of liability in international space law and its features.
2. The legal grounds of liability for damage caused by space objects.
3. The legal procedure of compensation for damage caused by space objects.

1. The notion of liability in international space law and its features

Discussing the issues of liability in international space law, first of all it is necessary to note that mandatory legal obligation of a launching state to compensate the damage caused by its space object was stated by article VII of the Outer Space Treaty of 1967. According to this article, «each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical person on the Earth, in air space or in outer space, including the Moon and other celestial bodies».

A more detailed development of these issues was presented later by the Liability Convention of 1972.

International legal liability is a juridical obligation of a subject of international law to compensate damage, caused to another subject of international law as a result of breaking an international legal norm, or obligation to compensate damage caused by actions, which are not breaking international law if such compensation is established by international treaty.

As it was stated earlier, international space law is a branch of international public law. So liability in international space law should be regarded as a kind of liability in international public law.

However, liability in international space law has its own features, which are determined by the character of space activities.

The features of liability in international space law

1. According to the legal provisions of international space law states bear international responsibility for all national space activities, whether such activities are carried on by governmental agencies or by non-governmental entities.

At the same time in correspondence with other branches of international public law, states do not bear international responsibility for activities, carried on by non-governmental entities, which are not acting in the name of an appropriate state.

2. Liability in international space law is regulated by the Convention on the International Liability for Damage Caused by Space Objects of 29th of March 1972.

3. Establishing absolute liability of a state for damage caused by its space object on the surface of the Earth or to aircraft in flight, the Liability Convention of 1972 does not state a high limit of compensation.

The compensation in international space law, which the launching state shall be liable to pay for damage shall be determined in accordance with the international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore to the condition which would have existed if the damage had not occurred.

Other branches of international public law state a high limit of compensation in case of absolute liability.

4. Each launching state, which receives information that its space object, being of a hazardous or deleterious nature, has landed on the territory of another state, should immediately take effective steps under the direction and control of that state to eliminate possible danger or harm (par. 4 art. 5 of the Rescue

Agreement of 1968). Other branches of international law do not contain such legal provisions.

5. The 5th feature is the provision of article 14 of the Moon Treaty of 1979. In particular, this treaty article settles that States Parties recognize that detailed arrangements concerning liability for damage caused on the Moon, in addition to the provisions of the Outer Space Treaty of 1967 and the Liability Convention of 1972, may become necessary as a result of more extensive activities on the Moon.

2. The legal grounds of liability for damage caused by space objects

In accordance with the Liability Convention of 1972, there are three legal grounds of liability in international space law:

damage;

causality;

fault.

It is necessary to point out that damage and causality are necessary grounds of liability in all cases of damage. Fault is regarded as a legal ground of liability in the definite conditions of damage only.

There are two grounds of liability in case the damage is caused by a space object on the surface of the Earth or to aircraft in flight. They are damage and causality. So, according to article II of the Liability Convention of 1972, «a launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight».

If the damage is caused to a space object of one launching state by a space object of another launching state, there will be three grounds of liability. They are damage, causality and fault. In correspondence with article III of the Liability Convention of 1972, «in the event of damage being caused elsewhere than on the surface of the Earth to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State,

the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible».

The notion «damage» is defined in accordance with paragraph «a» of the 1st article of the Liability Convention of 1972. According to this legal norm, «the term “damage” means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations».

This legal provision determines clear and definitely whether the damage was caused in correspondence with this international legal act, and, consequently, whether a launching state is liable to pay compensation or not.

Therefore, we can say that the damage is caused in case of one of the following situation:

- 1) loss of human life;
- 2) personal injury;
- 3) other impairment of health;
- 4) loss of property of states or of persons, natural and juridical, or property of international intergovernmental organizations;
- 5) damage to property of states or of persons, natural and juridical, or property of international intergovernmental organizations.

This list of indications of liability is exhaustive and close. A launching state will not be liable pay compensation without consequences, which are not within this list.

It is important to note, that causality is a necessary legal ground of all kinds of liability in international space law. So liability does not exist without causality.

3. The legal procedure of compensation for damage caused by space objects

A claim for compensation

The right of compensation for damage caused by a space object is realized by means of a claim for compensation presented to a launching state by a claimant state. In connection with this it is necessary to define the notion of «a claimant state». A claimant state is a state which suffers damage, or whose natural or juridical persons suffer damage (art. VIII).

There is a legal rule in the Liability Convention of 1972 that a claim for compensation for damage shall be presented to a launching state through diplomatic channels (art. IX).

This rule is based on the nature and character of international public law, which regulates international relations between states, international intergovernmental organizations or between states and international intergovernmental organizations as well. Since an appropriate claim for compensation is a claim of one subject of international space law to another one, such claim should be presented by the diplomatic way. The term «diplomatic channels» is used in plural in the Liability Convention of 1972. Consequently, a diplomatic state body should act both from a claimant state and from a launching state. In particular, the presentation of a claim by a natural or juridical person of one state to a diplomatic body or embassy of another state is legally impossible.

If a state does not maintain diplomatic relations with the launching state concerned, it may request another state to present its claim to that launching state or otherwise represent its interests. Besides, the Liability Convention of 1972 gives a claimant state the right to present its claim through the Secretary-General of the United Nations, provided the claimant state and the launching state are both members of the United Nations.

In accordance with paragraph 1 of article X of the Liability Convention of 1972, a claim of compensation for damage may be presented to a launching state

not later than one year following the date of the occurrence of the damage or the identification of the launching state which is liable.

If, however, a state does not know of the occurrence of the damage or has not been able to identify the launching state which is liable, it may present a claim within one year following the date on which it learned of the appropriate facts. But this period shall in no event exceed one year following the date on which the state could reasonably be expected to have learned of the facts through the exercise of due diligence.

The 11th article of the Convention says, that presentation of a claim to a launching state for compensation for damage under the Liability Convention of 1972 shall not require the prior exhaustion of any local remedies which may be available to a claimant state or to natural or juridical persons it represents.

A Claims Commission

If no settlement of a claim is reached through diplomatic negotiations within one year from the date on which the claimant state notifies the launching state, that it has submitted the documentation of its claim, the parties concerned establish a Claims Commission at the request of either party.

As article XV of the Liability Convention of 1972 states, the Claims Commission is composed of three members:

- the first member is appointed by the claimant state;
- the second member is appointed by the launching state;
- the third member, the Chairman, is chosen by both parts jointly.

Each party makes its appointment within two months of the request for the establishment of the Claims Commission.

Paragraph 2 of article XV of the Liability Convention of 1972 settles, that if no agreement is reached on the choice of the Chairman within four months of the request for the establishment of the Commission, either party may request the

Secretary-General of the United Nations to appoint the Chairman within a further period of two months.

It is necessary to point out that the Liability Convention of 1972 does not contain any requirement relating to the citizenship of the Claims Commission Chairman or its members. In connection with this a citizen of any state, not only of the states concerned, may take part as a member or the Chairman in the work procedure of the Claims Commission.

As article XVI of the Liability Convention of 1972 states, if one of the parties does not make its appointment within the stipulated period, the Chairman shall, at the request of the other party, constitute a single-member Claims Commission.

Any vacancy which may arise in the Commission for whatever reason shall be filled by the same procedure adopted for the original appointment (par. 2 art. XVI).

It is important to point out that in accordance with article XVII of the Liability Convention of 1972, no increase in the membership of the Claims Commission shall take place by reason of two or more claimant states or launching states being joined in any one proceeding before the Commission. The claimant states so joined shall collectively appoint one member of the Commission in the same manner and subject to the same conditions as would be the case for a single claimant state. When two or more launching states are so joined, they shall collectively appoint one member of the Commission in the same way.

Article XVIII contains the provision, which determines the competence of the Claims Commission: «The Claims Commission shall decide the merits of the claim for compensation and determine the amount of compensation payable, if any».

As it is pointed out in the Liability Convention of 1972, the Claims Commission shall determine its own procedure. The Commission shall determine the place or places where it shall sit and all other administrative matters.

The Liability Convention of 1972 contains legal norms regarding the procedure of Claims Commission.

So, paragraph 5 of article XVI says, that except in the case of decision and awards by a single-member Commission, all decisions and awards shall be made by majority vote. It is settled that the Commission shall give its decision or award as promptly as possible and no later, than one year from the date of its establishment, unless an extension of its period is found necessary by the Commission (par. 3 art. XIX).

It is very important to note that the Claims Commission may give a decision or an award. These acts of the Commission are of different legal forces for the parties.

So, the decision of the Commission shall be final and binding if the parties have so agreed. Otherwise the Commission shall render a final and recommendatory award, which the parties shall consider in good faith.

Lecture 7

Control activities in international space law

1. Control of a state of registry over a space object and the personnel thereof.
2. The legal grounds of identification of space objects in international space law.
3. The legal grounds of observation and inspection in international space law.

1. Control of a state of registry over a space object and the personnel thereof

The international legal statuses of outer space and celestial bodies have their features determining both regulations of space activities and the limits of the permissible conduct thereof. It is necessary that all space activities should correspond to the provisions of international space law and should be under the legal prohibitions and restrictions. In connection with this it has become necessary to establish legal forms of control over space activities in the first stages of the development of world cosmonautics.

The legal basis of control over space activities was established in article VIII of the Outer Space Treaty of 1967. It says that «a State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object and over any personnel thereof while in outer space or on a celestial body».

The notion «jurisdiction and control» in its wide meaning suggests the right of a state of registry to apply its legislative, executive and juridical power regarding a space object and the personnel thereof while in outer space or on a celestial body. The Outer Space Treaty of 1967 bound control activities with the registration of a space object. It is necessary to note here that the registration has a

more important meaning than other possible grounds of control, for example, a citizenship of the crewmembers, an ownership of a space object, the location of launch etc.

The legal problem of correlation of registration and control is solved quite simply regarding national space flight only. A state of registry realizes jurisdiction and control over a space object and the personnel thereof.

However, an international space flight makes the problem of control over a space object and the personnel thereof more complicated. In that case, as a rule, a legal provision acts, according to which a state of registry conducts both jurisdiction and control. But if there are several launching states participating in an international space flight, they can jointly determine which of them shall conduct the appropriate control.

This international legal provision is directly provided for in article II of the Registration Convention of 1975, saying about agreements «concluded or to be concluded among the launching States on jurisdiction and control over the space object and over any personnel thereof».

For example, paragraph 2 of article V of the Agreement on the Civil International Space Station of 1998 confirmed the provision of article VIII of the Outer Space Treaty of 1967 in general and stated the following: «Pursuant to Article VIII of the Outer Space Treaty and Article II of the Registration Convention, each Partner shall retain jurisdiction and control over the elements it registers in accordance with paragraph 1 above and over personnel in or on the Space Station who are its nationals. The exercise of such jurisdiction and control shall be subject to any implementing arrangements, including relevant procedural mechanisms established therein».

2. The legal grounds of identification of space objects in international space law

At the present stage of development of international space law the legal grounds of identification of objects launched into outer space is defined by legal statements of the Registration Convention of 1975.

So, in correspondence with articles IV and V of this Convention, each state of registry shall furnish to the Secretary-General of the United Nations the information concerning each space object carried on its registry, including data of an appropriate designator of the space object or its registration number. The Secretary-General of the United Nations records this notification in the Register.

Article VI of the Registration Convention of 1975, in its turn, states, that where the application of the provisions of this Convention has not enabled a State Party to identify a space object, which has caused damage to this State Party, or to any of its natural or juridical persons, or may be of a hazardous or deleterious nature, other States Parties, including in particular States possessing space monitoring and tracking facilities, shall respond to the greatest extent feasible to a request by that State Party, or transmitted through the Secretary-General on its behalf, for assistance under equitable and reasonable conditions in the identification of the object.

The Registration Convention of 1975 says that arrangements under which such assistance shall be rendered shall be the subject of agreement between the parties concerned.

3. The legal grounds of observation and inspection in international space law

The reciprocal control on a celestial body - the right of visit

The international legal provision concerning the right of visit has a very important meaning for the international legal status of a celestial body of the Solar

system. At the same time, considering the right of states to reciprocal control on a celestial body it is necessary to note that the legal basis of this provision existing at present in international space law had been established in the other branch of international public law long before the Outer Space Treaty of 1967 was signed.

On 1st of December 1959 the Antarctic Treaty was signed in Washington. This Treaty entered into force on 23rd of June 1961.

In this context the legal provisions of the Antarctic Treaty of 1959 contained in article VII present a special interest. So this article stated the right of Contracting Parties to the Treaty to free access for observation and inspection.

Paragraph 1 of article VII settles that «in order to promote the objectives and ensure the observation of the provisions of the present Treaty, each Contracting Party ... shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of the observers shall be communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment».

According to paragraph 2 «each observer designated in accordance with the provisions of paragraph 1 of this Article shall have complete freedom of access at any time to any or all areas of Antarctica».

Paragraph 3 of the 7th article says, that «all areas of Antarctica, including all stations, installations and equipment within those areas, and all ships and aircraft at points of discharging or embarking cargoes or personnel in Antarctica, shall be open at all times to inspection by any observers designated in accordance with paragraph 1 of this Article».

Establishing the basic principles of international space law, the interstate community had borrowed these statements from the Antarctic Treaty of 1959. In this way, concluding the Outer Space Treaty of 1967 states representatives had included the right to inspection and observation in it.

So this juridical right of States Parties was established in article XII of the Outer Space Treaty of 1967. Then this right was confirmed and developed by article 15 of the Moon Treaty of 1979.

Article XII of the Outer Space Treaty of 1967 says that «all stations, installations, equipment and space vehicles on the Moon and other celestial bodies shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity».

As it was stated above, a more detailed development of this legal provision of the Outer Space Treaty of 1967 was presented in article 15 of the Moon Treaty of 1979. The meaning of presenting the right of visit is given in this article: «Each State Party may assure itself that the activities of other States Parties in the exploration and use of the Moon are compatible with the provisions of this Agreement». This article also says that such States Parties shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal operations in the facility to be visited.

Stating of these norms is connected with the necessity to inspect the maintenance of legal requirements of the Outer Space Treaty of 1967 and the Moon Treaty of 1979, which prohibit any military activity on the Moon and other celestial bodies. Besides, both the Outer Space Treaty of 1967 and the Moon Treaty of 1979 contain other legal regulations, which are mandatory for all the states parties. Therefore the right of visit may be applied as a means of reciprocal control over maintenance of other requirements of international space law. For example, in case of realizing of the legal requirement regarding the international scientific preserves on the Moon and other celestial bodies.

As we can see, both article XII of the Outer Space Treaty of 1967 and article VII of the Antarctic Treaty of 1959 contain basically similar legal provisions. However, in spite of this similarity, these articles have also significant distinctions.

Let's consider these legal distinctions: article XII of the Outer Space Treaty of 1967, like article 15 of the Moon Treaty of 1979 states the obligations of Contracting Parties to give «reasonable advance notice of a projected visit». At the same time, according to paragraph 3 of article VII of the Antarctic Treaty of 1959, all stations, installations, equipment, ships, aircraft and other objects in Antarctica may be inspected without any «advance notice of a projected visit».

It is necessary to admit that the international control over the space activities could be conducted more successfully by the special international control organization. Because of this on 17th of March 1988 the Soviet Union proposed to found the International Space Inspectorate, which would have the international legal status of international intergovernmental organization. According to the Soviet proposal, the main purpose of this international organization is to verify the non-deployment of weapons of any kind in outer space.

The principal element in the proposed verification system is the creation of «an international inspectorate» to conduct on-site inspection «before the space objects are launched». The envisaged scope of prohibition would include weapon systems equipped to conduct ground, air, or outer space strikes, «...irrespective of the physical principles on which they are based». Certain types of ballistic missiles are excluded from verification.

Verification of undeclared launches from undeclared launching pads by means of:

- ad hoc on-site inspections;
- advance notification of every forthcoming launch;
- establishment of inspection observatories, industrial enterprises, laboratories and testing centers.

However, the International Space Inspectorate has not been established.

The reciprocal control from outer space by using space objects

The observation from outer space by using space objects in accordance with connected intergovernmental treaties is a very important means of control over space activities.

On 26th of May 1972 the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems was signed in Moscow. Article XII of this Treaty contained the provision according to which «For the purpose of providing assurance or complains with the provisions of this Treaty, each Party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law».

The Treaty of 1972 uses the term «national technical means» in general without any restrictions or exceptions. Because of this the term «national technical means» covers all of them without exception, including also the space objects, which have special equipment for observation from outer space.

The legal provisions of the 2nd and 3rd paragraphs of the same treaty article are very significant for the development of international space law. So, according to paragraph 2 of this article, «each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph 1 of this article». Besides, as it is stated in paragraph 3 «each Party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this Treaty. This obligation shall not require changes in current construction, assembly, conversion, or overhaul practices».

In this way, according to these legal provisions of the Treaty on the Limitation of Anti-Ballistic Missile Systems of 1972, the use of the space technical means for observation and control is a legitimate activity. However, the interference with the national technical means of verification, including the space

technical means should be regarded as illegal acts, which breaks the legal treaty norms.

On 13th of June 2002 the USA withdrew from this Treaty. In spite of this, the Treaty on the Limitation of Anti-Ballistic Missile Systems of 1972 had formed a certain basis for further development of international law.

Some of the intergovernmental treaties, which were concluded among the USSR (Russian Federation) and the USA contained similar legal provisions. For example:

1) The Treaty between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles, signed on 8th of December 1987;

2) The Treaty between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms, signed on 31st of July 1991 (START I Treaty);

3) The Treaty between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms, signed on 3rd of January 1993 (START II Treaty) and others.

It is very important and interesting to study the Memorandum from the French Government Concerning the International Space Satellite Monitoring Agency. In this memorandum submitted on 24th of February 1978 to the Preparatory Committee for the 34th Special Session of the United Nations General Assembly Devoted to Disarmament, the Government of France proposed to establish the International Space Monitoring Agency. As it is said in this document space satellites a very important for observation over the Earth surface, especially for monitoring disarmament agreements and for helping to strengthen international confidence and security.

Unfortunately, the International Space Satellite Monitoring Agency proposed by the Government of the French Republic has not been established.

Lecture 8

International organizations on peaceful exploration and use of outer space

1. The United Nations Committee on the Peaceful Uses of Outer Space.
2. International intergovernmental organizations.
3. International non-governmental organizations.

1. The United Nations Committee on the Peaceful Uses of Outer Space

In 1958, shortly after the successful launching of the first artificial satellite in the USSR, the General Assembly decided to establish an ad hoc Committee on the Peaceful Uses of Outer Space (resolution 1348 (XIII)), with 18 members, in order to consider:

- a) the activities and resources of the United Nations, the specialized agencies and other international bodies relating to the peaceful uses of outer space;
- b) international cooperation and programs in the field that could appropriately be undertaken under United Nations auspices;
- c) organizational arrangements to facilitate international cooperation in the field within the framework of the United Nations; and
- d) legal problems which might arise in programs to explore outer space.

The following year, a permanent Committee on the Peaceful Uses of Outer Space (COPUOS) was established by the General Assembly.

So, on 12th of 1959 the General Assembly of the United Nations passed the Resolution 1472 (XIV) «International cooperation in the Peaceful uses of outer space». According to this Resolution the United Nations General Assembly established the Committee as a permanent body.

In 1961, the General Assembly, considering that the United Nations should provide a focal point international cooperation in the peaceful exploration and use of outer space, requested the Committee, in cooperation with the Secretary-General and, making full use of the functions and resources of the Secretariat:

- a) to maintain close contact with governmental and non-governmental organizations concerned with outer space matters;
- b) to provide for the exchange of such information relating to outer space activities as Governments may supply on a voluntary basis, supplementing, but not duplicating, existing technical and scientific exchanges;
- c) to assist in the study of measures for the promotion of international cooperation in outer space activities.

The resolution also requested the Secretary-General to maintain a public registry of launchings based on the information supplied by states launching objects into orbit or beyond (resolution 1721(XVI)).

Those terms of reference have since provided the general guidance for the activities of the Committee in promoting international cooperation in the peaceful uses and exploration of outer space.

In 1959, the Committee had 24 members. Since then it has grown to 67 members - one of the largest Committees in the United Nations. In addition to states a number of international organizations, including both intergovernmental and non-governmental organizations, have observer status with COPUOS and its Subcommittees.

The Committee has two standing Subcommittees of the whole: the Scientific and Technical Subcommittee; and the Legal Subcommittee.

The Committee and its two Subcommittees meet annually to consider questions put before them by the General Assembly, reports submitted to them and issues raised by the Member States. The Committee and the Subcommittees, working on the basis of consensus, make recommendations to the General Assembly. Detailed information on the work of the Committee and the Subcommittees are contained in their annual reports.

The fiftieth session of the Committee on the Peaceful Uses of Outer Space was held from 6th till 15th of June 2007 at the United Nation Office in Vienna, Austria.

2. International intergovernmental organizations

Among all international organizations only international intergovernmental organizations can be regarded as subjects of international public law. Because of this, it is necessary to point out that international non-governmental organizations do not possess such legal status, so they are not subjects of international public law.

The constituent act of an appropriate international intergovernmental organization determines its status and authorities. This act gives the international intergovernmental organization the right to take part in the international relations, to make decisions and to conclude international agreements with states and other international organizations.

The legal authorities of an international intergovernmental organization differ from the authorities of a state. Any state has legal allowance to conduct all kinds of legal activities without limitation. However, the authorities of an international intergovernmental organization are limited by the objectives and scope, which are settled in the constituent act – statute, constituent agreement etc. So they have functional character.

Let's consider some of the international intergovernmental organizations on the peaceful exploration and use of outer space, including the Moon and other celestial bodies.

The European Space Agency (ESA)

On 20th of December 1972 the European Space Conference was held. This Conference adopted the Resolution, according to which a new organization, called the «European Space Agency», would be formed out of the European Space Research Organization and the European Organization for the Development and Construction of Space Vehicle Launches, and that the aim would be to integrate the European national space programs into a European space program as far and as

fast as possible. The following European Space Conference, which was held on 31st of July 1973, confirmed the provisions of this Resolution.

Because of this on 30th of May 1975 the Convention for the Establishment of the European Space Agency was open for signing in Paris, and entered into force on 30th of October 1980.

The European Space Agency is a regional international intergovernmental organization. The purposes of the European Space Agency is to provide for and to promote, for exclusively peaceful purposes, cooperation among European states in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space application systems.

The organs of the European Space Agency are the Council and the Director General, assisted by a staff.

The Headquarters of the European Space Agency is situated in Paris.

*The International System and Organization of Space Communications –
«Intersputnik»*

On 15th of December of 1971 the Agreement on the Establishment of the International System and Organization of Space Communications - Intersputnik was open for signature in Moscow. This Agreement enacted on 12th of July 1972.

Intersputnik is an international organization and an international system of communications via satellites. It is an open organization.

According to article 4 of the Agreement, the international system of communications via satellites includes as its components:

a) a space segment comprising communications satellites with transponders, satellite-borne facilities and ground systems of control to ensure the normal functioning of the satellites;

b) Earth stations mutually communicating via satellites.

Article 7 states, that the Organization shall coordinate its activities with the International Telecommunication Union and cooperate with other organizations

concerned with the use of communications satellites both in technology (the use of the frequency spectrum, the application of technical standards for communications channels and of equipment standards) and in international regulations.

The Organization is a legal entity and is entitled to conclude contracts, acquire, lease and alienate property and to institute proceedings.

The following bodies shall be established to govern the activities of the Organization:

- a) the Board - a governing body;
- b) the Directorate - a permanent executive and administrative body - headed by the Director-General.

The seat of the Organization is located in Moscow.

The International Telecommunications Satellite Organization (INTELSAT)

On 23rd of November 1971 the Agreement, Relating to the International Telecommunications Satellite Organization (INTELSAT) was signed. According to this Agreement the International Telecommunications Satellite Organization (INTELSAT) had been established. INTELSAT is a universal international organization. Each state – a member of the International Telecommunication Union has the legal allowance to participate in INTELSAT.

The main purpose of this international intergovernmental organization is to continue and carry forward on a definite basis the design, development, operation and maintenance of the space segment of the global commercial telecommunications satellite system.

The structure of the International Telecommunications Satellite Organization consists of the following organs:

- a) the Assembly of the Parties;
- b) the Meeting of Signatories;
- c) the Board of Governors;
- d) the executive organ responsible to the Board of Governors.

The Headquarters of the International Telecommunications Satellite Organization (INTELSAT) is located in Washington.

The International Maritime Satellite Organization (INMARSAT)

On 16th of July 1976 the Convention of the International Maritime Satellite Organization (INMARSAT) was open for signature. The purpose of this Organization is to make provision for the space segment necessary for improving maritime communications, thereby assisting in improving distress and safety of life at sea communications, efficiency and management of ships, maritime public correspondence services and radio-determination capabilities.

The organs of the Organization are:

- a) the Assembly;
- b) the Council;
- c) the Directorate headed by a Director General.

Article 7 determines the conditions of access to Space Segment. It says that the INMARSAT space segment shall be open for use by ships of all nations on conditions to be determined by the Council. In determining such conditions, the Council shall not discriminate among ships on the basis of nationality. The Council may, on a case-by-case basis, permit access to the INMARSAT space segment by Earth stations located on structures operating in the marine environment other than ships if and as long as the operation of such earth stations will not significantly affect the provision of service to ships.

In correspondence with paragraph 3 of the 3rd article, earth stations on land communicating via the INMARSAT space segment shall be located on land territory under the jurisdiction of a Party and shall be wholly owned by Parties or entities subject to their jurisdiction. The Council may authorize otherwise if it finds this to be in the interests of the Organization.

The Arab Corporation for Space Telecommunications (ARABSAT)

On 14th of April 1976 the Agreement of the Arab Corporation for Space Communications was open for signature, and it enacted on 16th of July 1976.

In correspondence with article 2 of this Agreement, an independent corporation had been established within the framework of the League of Arab States, by the name of The Arab Corporation for the Space Telecommunications.

The Corporation has a full legal character and has the right, within its objects, to conclude and contract agreements, to possess movable and immovable property and dispose of them and the right to litigate and undertake all legal measures.

The Corporation aims to provide and set up the Arab Space Sector for general and specialized services in the field of telecommunications for all member states of the Arab League in accordance with technical and economic criteria in the Arab and international quarters.

Besides the realization of the said objects the corporation may undertake the following activities:

- a) assisting Arab countries financially or technically in designing and constructing ground stations;
- b) undertaking research and special studies concerning space science and technology;
- c) encouraging the establishment of industries necessary to supply installations to the space sector and ground stations in the Arab states;
- d) undertaking television and radio transmissions and telecasting among departments and organizations concerned in the Arab states, via the Arab Satellite network and laying down regulations organizing the use of TV and radio channels in such a manner as to satisfy the local and collective needs of the Arab states.

The 4th article of the Agreement of 1976 says that membership of the Corporation is for Arab states, which are members of the League of Arab States and which subscribed to the capital of the Corporation. So, the Arab Corporation

for Space Communications is an international intergovernmental regional organization.

The Head Office of the Corporation is situated in the city of Riyadh in the Kingdom of Saudi Arabia and it is competent to have branches in the member Arab states. The Main Control Station is in the Kingdom of Saudi Arabia.

It is necessary to note, that there are other international intergovernmental organizations on peaceful exploration and use of outer space, including the Moon and other celestial bodies all over the world: the European Telecommunication Satellite Organization (EUTELSAT), the European Organization for the Exploration of Meteorological Satellites (EUMETSAT) etc. As it was stated above, all of them are subjects of international space law.

3. International non-governmental organizations

As it was noted earlier, the international non-governmental organizations are not subjects both of international public law in general and of international space law in particular. In spite of this, they have very important role in the peaceful exploration and use of outer space, including the Moon and other celestial bodies.

An international non-governmental organization on the peaceful exploration and use of outer space is a union of national social organizations, professional teams and individual scientists, specially established in order to promote international cooperation on the peaceful uses of outer space. Such organizations are usually established on the basis of an international non-governmental agreement, they do not follow any commercial objectives.

Let's consider the most authoritative international non-governmental organizations on the peaceful exploration and use of outer space. They are:

- 1) the Committee on Space Research (COSPAR);
- 2) the International Astronautical Federation (IAF);

- 3) the International Academy of Astronautics (IAA);
- 4) the International Institute of Space Law of the International Astronautical Federation (IISL).

The Committee on Space Research (COSPAR)

After the USSR launched its first Earth Satellite in 1957 and thereby opened the space age, the International Council of Scientific Unions, now the International Council for Science, established its Committee on Space Research (COSPAR) during an international meeting in London in 1958. The first Space Science Symposium of COSPAR was organized in Nice in January 1960.

The objectives of COSPAR are to promote on an international level scientific research in space, with emphasis on the exchange of results, information and opinions, and to provide a forum, open to all scientists, for the discussion of problems that may affect scientific space research. These objectives are achieved through the organization of Scientific Assemblies, publications and other means.

In its first years of existence COSPAR, as an entity that ignores political considerations and views all questions solely from the scientific standpoint, played an important role as an open bridge between East and West for cooperation in space. When this role became less prominent with the decline in rivalry between the two blocs, COSPAR, as an interdisciplinary scientific organization, focused its objectives on the progress of all kinds of research carried out with the use of space means (including balloons).

COSPAR acts mainly:

- a) as a body responsible for organizing biennial Scientific Assemblies, with strong contributions from most countries engaged in space research. These meetings allow the presentation of the latest scientific results, the exchange of knowledge and also the discussion of space research problems. Over several decades providing this service has brought recognition to the COSPAR Scientific Assembly as the premier forum for presenting the most important results in space

research in all disciplines and as the focal point for truly international space science. In this regard it should be observed that COSPAR has played a central role in the development of new space disciplines such as life sciences or fundamental physics, by facilitating the interaction between scientists in emergent space fields and senior space researchers;

b) as an entity which, in addition to providing a meeting ground for scientists involved in fundamental research, also publishes a journal to disseminate scientific results;

c) as a body organizing, on a regional scale, scientific exchange on specific research topics, in the framework of colloquia;

d) as a scientific committee advising, as required, the UN and other intergovernmental organizations on space research matters or on the assessment of scientific issues in which space can play a role;

e) as a panel for the preparation of scientific and technical standards related to space research;

f) as an entity promoting, on an international level, research in space, much of which has grown into large international collaborative programs in the mainstream of scientific research. COSPAR strives to promote the use of space science for the benefit of mankind and for its adoption by developing countries and new space-faring nations.

The highest body of COSPAR is the Council. The Council is comprised of the Committee's President, Representatives of Member National Scientific Institutions and International Scientific Unions, the Chairs of COSPAR Scientific Commissions, and the Chair of the Finance Committee. The Council meets at the Committee's biennial Scientific Assembly. Between Assemblies it is the Bureau which runs COSPAR on a day-to-day basis.

The Headquarters of the Committee on Space Research is located in Paris.

The International Astronautical Federation (IAF)

The International Astronautical Federation is also based in Paris. It was founded in 1951 as an international non-governmental organization.

The Federation was founded in London during the Second International Astronautical Congress. The founding agreement of the International Astronautical Federation was signed on 4th of September 1951 by Argentina, Austria, France, Germany, Italy, Spain, Sweden, Switzerland and Great Britain.

The International Astronautical Federation is linked with the International Academy of Astronautics and the International Institute of Space Law with whom the IAF organizes the annual International Astronautical Congresses. Working in close cooperation with the United Nations, the International Astronautical Federation IAF organizes annually the Space Workshop for Developing Nations and participated in Unispace III. With the Committee on Space Research and the International Institute for Space Law, the International Astronautical Federation also conducts an annual survey of Highlights in Space for the United Nations.

The Federation encourages the advancement of knowledge about space and the development and application of space assets for the benefit of humanity. It plays an important role in disseminating information, and in providing a significant worldwide network of experts in the development and utilization of space. The International Astronautical Federation is composed of space agencies, space companies, societies, associations and institutes.

Every year since 1951, the Federation together with its associates, the International Academy of Astronautics and the International Institute of Space Law, has organized the International Astronautical Congress.

The International Academy of Astronautics (IAA)

The International Academy of Astronautics (IAA) was founded in Stockholm on 16th of August 1960. Since that time, the International Academy of

Astronautics has brought together the world's foremost experts in the disciplines of astronautics on a regular basis to recognize the accomplishments of their peers, to explore and discuss cutting-edge issues in space research and technology, and to provide direction and guidance in the non-military uses of space and the ongoing exploration of the solar system. The purposes of the International Academy of Astronautics, as stated in the Academy's statutes are:

- a) to foster the development of astronautics for peaceful purposes,
- b) to recognize individuals who have distinguished themselves in a branch of science or technology related to astronautics,
- c) to provide a program through which the membership can contribute to international endeavors and cooperation in the advancement of aerospace science, in cooperation with national science or engineering academies.

The Academy's beginning was led by Dr. Theodore von Karman, one of the most important figures in the evolution of rocketry, and the first president of the International Academy of Astronautics.

The International Academy of Astronautics recognizes the global significance of astronautics and space exploration. The members are all over the world, i.e., approximately 65 countries.

The membership in the International Academy of Astronautics consists of individuals who have distinguished themselves in one of the fields of astronautics or one of the branches of science of fundamental importance for the exploration of space. Election to the Academy is recognition of an individual's record of service and achievement, and members are leaders in space and aeronautical activities in their own countries. New members are elected by their peers in the Academy; full members are elected for life, while corresponding members are eligible for full membership after two years, but retire after five year. Membership brings with it the commitment to work with fellow members for the betterment of mankind through the application of the art and science of astronautics.

People in almost every profession contribute to the development of astronautics; therefore, the International Academy of Astronautics is arranged in

four sections to reflect the major disciplines: Basic Sciences, Engineering Sciences, Life Sciences and Social Sciences.

The governing body of the Academy is the Board of Trustees, which includes the President and four vice-Presidents, the four section chairs, and four trustees from each section. The vice-Presidents are chairpersons of the four International Academy of Astronautics standing committees: the Scientific Programs Committee, the Publications Committee, the Awards and Membership Committee and the Finance Committee. The standing committees are responsible for policy recommendations and guidance of operations in particular areas of International Academy of Astronautics affairs. The presidents of associated organizations also serve on the Board, as does the Legal Counsel and the Secretary General. The Board of Trustees meets two or three times yearly. A regular meeting of the full International Academy of Astronautics is held every two years. Academicians are also invited to meet during Regional Meetings of the International Academy of Astronautics.

The Secretariat of the International Academy of Astronautics is located in Paris.

The International Institute of Space Law of the International Astronautical Federation (IISL)

The International Institute of Space Law was founded by the International Astronautical Federation in 1960. It replaced the Permanent Committee on Space Law which the International Astronautical Federation had created in 1958.

Since 1958, the International Institute of Space Law has held annual colloquia on space law, the proceedings of which are published by the American Institute of Aeronautics and Astronautics. The International Institute of Space Law presently has individual and institutional elected members from over 40 countries who are distinguished for their contributions to space law development. While a component of the International Astronautical Federation, the International Institute

of Space Law is authorized to function autonomously in accordance with its Statutes.

The purposes and objectives of the Institute include the cooperation with appropriate international organizations and national institutions in the field of space law, the carrying out of tasks for fostering the development of space law and studies of legal and social science aspects of the exploration and use of outer space and the holding of meetings, colloquia and competitions on juridical and social science aspects of space activities.

The governing body of the Institute is the Board of Directors, which consists of the President, Presidents Emeriti, two Vice-Presidents, Secretary, Treasurer and twelve other Members. The General Meeting of Members convenes once a year during the Colloquium.

The Secretariat of the Institute is located at the Headquarters of the International Astronautical Federation in Paris.

Lecture 9

The legal status of the Civil International Space Station

1. The legal basis of the establishment and operation of the Civil International Space Station.
2. The basic provisions of the Agreement Concerning Cooperation on the Civil International Space Station of 29th of January 1998.

1. The legal basis of the establishment and operation of the Civil International Space Station

The work on the International Space Station started in 1993. Russia, having more than 25 years of experience in the operation of space stations «Salyut» and «Mir», an invaluable experience of long-duration missions, put forward a proposal to join the efforts of Russia and the USA in the implementation of space programs.

On 15th of March 1993 the Director-General of the Russian Space Agency and the Designer-General of the NPO «Energia» presented to the Administrator of NASA, USA a proposal to create the Civil International Space Station.

On 2nd of September 1993 the Chairman of the Russian Federation Government and the Vice-president of the USA signed a Joint Declaration on Cooperation in Space, which among other things, envisaged creating a joint space station. It was followed up by a detailed Work Plan for the International Space Station developed by the Russian Space Agency and NASA and signed by them on 1st of November 1993. This opened the way for signing in June 1994 the contract between the Russian Space Agency and NASA on Deliveries and Services for «Mir» and International Space Station.

On 29th of January 1998 the Agreement Concerning Cooperation on the Civil International Space Station was signed in Washington by the governments of Canada, Member States of the European Space Agency, Japan, the Russian Federation and the United States of America.

On 29th Of December 2000 this intergovernmental Agreement was ratified by Federal Law № 164-FZ and it entered into force for the Russian Federation on 27th of March 2001.

The main purpose of establishment of the International Space Station is to conduct together by all the States Parties to the Agreement scientific investigations in outer space. The International Space Station program is the next logical step in the progress of space science and activities. It is a cooperative effort by many nations. When the International Space Station is completed it will provide more abilities for space research than any spacecraft ever built. Experiments are being done there that could not be repeated on the Earth. This is because of the extreme lack of gravity in outer space. Its future research plans include experiments in biology, chemistry, physics, ecology, medicine etc.

The system of legal regulations of the space activity on the Civil International Space Station was founded as a result of international negotiations between the participants. This system of legal regulations consists of three levels of the legal acts setting the reciprocal rights and obligations of the States Parties.

The first and basic level of the regulations is the Agreement Concerning Cooperation on the Civil International Space Station of 1998. It has stated the main principles of international cooperation and reciprocal rights and obligations of the States Partners.

The second level of regulations includes bilateral Memoranda of Understanding, which were prepared by the space agencies of the States Parties. The rules of such Memoranda govern mainly the technical issues of direct cooperation and coordination on the International Space Station. They provide detailed provisions in the implementation of the Agreement.

The third level of the legal regulations is presented by the Code of Conduct for the International Space Station Crew.

2. The basic provisions of the Agreement Concerning Cooperation on the Civil International Space Station of 29th of January 1998

Article 1 of the Agreement on the Civil International Space Station of 1998 has settled its object and scope. So, in particular this article says, that «The object of this Agreement is to establish a long-term international cooperative framework among the Partners, on the basis of genuine partnership, for the detailed design, development, operation, and utilization of a permanently inhabited civil international Space Station for peaceful purposes, in accordance with international law».

According to the provisions of this Agreement the permanently inhabited civil international Space Station will be a multi-use facility in low-earth orbit, with flight elements and Space Station-unique ground elements provided by all the partners. By providing Space Station flight elements, each Partner acquires certain rights to use the Space Station and participates in its management in accordance with this Agreement, the Memoranda of Understanding, and implementing arrangements.

The Space Station is conceived as having an evolutionary character.

The 2nd article of the Agreement of 1998 says, that the International Space Station shall be developed, operated, and utilized in accordance with international law, including the Outer Space Treaty of 1967, the Rescue Agreement of 1968, the Liability Convention of 1972, and the Registration Convention of 1975. In this way, the legal provisions of this Agreement should correspond with basic principles and norms of international space law.

Article 5 of the Agreement on the Civil International Space Station of 1998 regulates the issues of registration, jurisdiction and control, while the 6th article is devoted to the issues of ownership of elements and equipment.

So, article 5 states that in accordance with article II of the Registration Convention of 1975, each Partner shall register as space objects the flight elements, which it provides. According to article 6 of the Agreement, each Party of

this Agreement shall own the elements that they respectively provide, except those, provided for in this Agreement.

There is a legal basis of management in article 7. Management of the International Space Station will be established on a multilateral basis and the Partners, acting through their Cooperating Agencies, will participate and discharge responsibilities in management bodies established in accordance with the Memoranda of Understanding and implementing arrangements.

These management bodies shall plan and coordinate activities affecting the design and development of the Space Station and its safe, efficient, and effective operation and utilization, as provided in this Agreement and the Memoranda of Understanding. In these management bodies, decision-making by consensus shall be the goal. In case it is not possible for the Cooperating Agencies to reach consensus, the mechanisms for decision-making within these management bodies are specified in the Memoranda of Understanding.

In accordance with article 9 of the Agreement on the Civil International Space Station of 1998, utilization rights are derived from Partner provision of user elements, infrastructure elements, or both. Any Partner that provides Space Station user elements shall retain use of those elements, except as otherwise provided in this Agreement. Partners providing resources to operate and use the Space Station, which are derived from their Space Station infrastructure elements, shall receive in exchange a fixed share of the use of certain user elements. Partners' specific allocations of Space Station user elements and of resources derived from Space Station infrastructure are set forth in the Memoranda of Understanding and implementing arrangements.

Article 11 of the Agreement sets the right of each Partner to provide qualified personnel to serve on an equitable basis as Space Station crewmembers. Selections and decisions regarding the flight assignments of a Partner's crewmembers shall be made in accordance with procedures provided in the Memoranda of Understanding and implementing arrangements.

Each of the Partners has the right of access to the Space Station using its respective government and private sector space transportation systems, if they are compatible with the Space Station (art. 12 – «Transportation»).

Article 14 of the Agreement defines the perspectives of the International Space Station evolution. It is pointed out, that the «Partners intend that the Space Station shall evolve through the addition of capability and shall strive to maximize the likelihood that such evolution will be effected through contributions from all the Partners. To this end, it shall be the object of each Partner to provide, where appropriate, the opportunity to the other partners to cooperate in its proposals for additions of evolutionary capability». It is necessary to note, that this article contains the following provision: «The Space Station together with its additions of evolutionary capability shall remain a civil station, and its operation and utilization shall be for peaceful purposes, in accordance with international law».

Subparagraph 2 «c» of article 16 contains the definition of damage. It is settled that the term "damage" means:

- 1) bodily injury to, or other impairment of health of, or death of any person;
- 2) damage to, loss of, or loss of use of any property;
- 3) loss of revenue or profits;
- 4) direct, indirect or consequential damage.

The 22nd article of the Agreement on the Civil International Space Station of 1998 is devoted to the criminal jurisdiction of the states, participating in this international project.

So paragraph 1 of article 22 states that Partners may exercise criminal jurisdiction over personnel in or on any flight element who are their respective nationals.

However, in a case involving misconduct on orbit that:

- a) affects the life or safety of a national of another Partner State or
- b) occurs in or on or causes damage to the flight element of another Partner State,

the Partner State whose national is the alleged perpetrator shall, at the request of any affected Partner State, consult with such State concerning their respective prosecutorial interests. An affected Partner State may, following such consultation, exercise criminal jurisdiction over the alleged perpetrator provided that, within 90 days of the date of such consultation or within such other period as may be mutually agreed, the Partner State whose national is the alleged perpetrator either:

- 1) concurs in such exercise of criminal jurisdiction, or
- 2) fails to provide assurances that it will submit the case to its competent authorities for the purpose of prosecution.

The Agreement on the Civil International Space Station of 1998 also sets a very important provision: that it can be regarded as the legal basis for extradition in connection with issues of the criminal jurisdiction (par. 3 art. 22).

In view of the long-term, complex, and evolving character of their cooperation under this Agreement, the partners shall keep each other informed of developments which might affect this cooperation.

The 28th article defines the legal conditions of the withdrawal from the Agreement. For this purpose any Partner State shall send to the Depositary a written notice informing about this withdrawal one year in advance.

If a Partner gives notice of withdrawal from this Agreement, with a view toward ensuring the continuation of the overall program, the Partners shall endeavor to reach agreement concerning the terms and conditions of that partner's withdrawal before the effective date of withdrawal.

Lecture 10

The legal regulations of some applied kinds of space activities

1. The legal regulations of remote sensing activities of the Earth from outer space.
2. The legal regulations in the use of artificial Earth satellites for international direct television broadcasting.

1. The legal regulations of remote sensing activities of the Earth from outer space

The remote sensing of the Earth from outer space is a kind of space activities. So, all the legal provisions of international space law also apply to remote sensing activities.

On 3rd of December 1986 Resolution 41/65 «Principles Relating to Remote Sensing of the Earth from Outer Space» was adopted by the United Nations General Assembly.

It is necessary to point out, that this act does not have an obligatory legal force. It can be regarded as a list of legal recommendations on this kind of space activities. In spite of that, today this international act has a very important role in international space law.

The first principle of this act contains a list of definitions of the basic notions. So the terms «remote sensing», «remote sensing activities» and other terms are defined.

According to item «a» of this principle, «the term "remote sensing" means the sensing of the Earth's surface from outer space by making use of the properties of electromagnetic waves emitted, reflected or diffracted by the sensed objects, for the purpose of improving natural resources management, land use and the protection of the environment».

The term «remote sensing activities» means the operation of remote sensing space systems, primary data collection and storage stations, and activities in processing, interpreting and disseminating the processed data.

The second principle is devoted to the important provision, stating that the remote sensing activities shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic, social or scientific and technological development, and taking into particular consideration the needs of the developing countries.

The third principle says that remote sensing activities shall be conducted in accordance with international law, including the Charter of the United Nations, the Outer Space Treaty of 1967 and the relevant instruments of the International Telecommunication Union.

Principles VI, VII and VIII are devoted to the issues of the international collaboration in conducting remote sensing activities of the Earth from outer space. It is said, that in order to maximize the availability of benefits from remote sensing activities, States are encouraged, through agreements or other arrangements, to provide for the establishment and operation of data collecting and storage stations and processing and interpretation facilities, in particular within the framework of regional agreements or arrangements wherever feasible. The states participating in remote sensing activities shall make available technical assistance to other interested States on mutually agreed terms.

The United Nations and the relevant agencies within the United Nations system shall promote international cooperation, including technical assistance and coordination in the area of remote sensing.

Principle X underlines, that remote sensing shall promote the protection of the Earth's natural environment. To this end, States participating in remote sensing activities that have identified information in their possession that is capable of averting any phenomenon harmful to the Earth's natural environment shall disclose such information to States concerned.

In accordance with the 11th principle, the remote sensing shall promote the protection of mankind from natural disasters. To this end, States participating in remote sensing activities that have identified processed data and analyzed information in their possession that may be useful to States affected by natural disasters, or likely to be affected by impending natural disasters, shall transmit such data and information to States concerned as promptly as possible.

Principle 12 settles the following: «As soon as the primary data and the processed data concerning the territory under its jurisdiction are produced, the sensed State shall have access to them on a non-discriminatory basis and on reasonable cost terms.

The sensed State shall also have access to the available analyzed information concerning the territory under its jurisdiction in the possession of any State participating in remote sensing activities on the same basis and terms, taking particularly into account the needs and interests of the developing countries».

As it is stated in principle 15, any dispute resulting from the application of these principles shall be resolved through the established procedures for the peaceful settlement of disputes.

On 19th of May 1978 the Convention of the Transfer and Use of Data of Remote Sensing of the Earth from Outer Space (the Moscow Treaty of 1978) was signed in Moscow. The Moscow Treaty of 1978 entered into force on 21st of August 1979.

Very important are the provisions contained in articles IV and V of this Convention. So, according to article IV of the Moscow Treaty of 1978, «a Contracting Party in possession of initial data of the remote sensing of the Earth from outer space, with a better than 50 meters resolution on the terrain, relating to the territory of another Contracting Party, shall not disclose or make them available to anyone except with an explicit consent thereto of the Contracting Party to which the sensed territories belong, nor shall it use them or any other data in any way to the detriment of that Contracting Party».

As it is stated in article V of the Moscow Treaty of 1978, a Contracting Party that has obtained as a result of the deciphering and thematic interpretation of any data of the remote sensing of the Earth from outer space information about the natural resources or the economic potential of another Contracting Party shall not disclose such information or make it available to anyone except with an explicit consent thereto of the Contracting Party to which the sensed territories and natural resources belong, nor shall it use such or any other information in any way to the detriment of that Contracting Party.

2. The legal regulations in the use of artificial Earth satellites for international direct television broadcasting

On 10th of January 1982 Resolution 37/92 «Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting» was adopted by the United Nations General Assembly. This act does not have an obligatory legal force.

First of all this document underlines its purposes and objectives. In particular, it says, that the activities in the field of international direct television broadcasting by satellite should be carried out in a manner compatible with the sovereign rights of States, including the principle of non-intervention, as well as with the right of everyone to seek, receive and impart information and ideas as enshrined in the relevant United Nations instruments. In accordance with these principles, such activities should promote the free dissemination and mutual exchange of information and knowledge in cultural and scientific fields, assist in educational, social and economic development, particularly in the developing countries, enhance the qualities of life of all peoples and provide recreation with due respect to the political and cultural integrity of States. These activities should accordingly be carried out in a manner compatible with the development of mutual understanding and the strengthening of friendly relations and cooperation among

all States and peoples in the interest of maintaining international peace and security.

As it is pointed out in this act the activities in the field of international direct television broadcasting by satellite should be conducted in accordance with international law, including the Charter of the United Nations, the Outer Space Treaty of 1967, the relevant provisions of the International Telecommunication Convention and its Radio Regulations and of international instruments relating to friendly relations and cooperation among States and to human rights.

The principles settle that every State has an equal right to conduct activities in the field of international direct television broadcasting by satellite and to authorize such activities by persons and entities under its jurisdiction. All States and peoples are entitled to and should enjoy the benefits from such activities. Access to the technology in this field should be available to all States without discrimination on terms mutually agreed by all concerned.

Some of the provisions of this act are devoted to the issues of the international cooperation. Such provisions state that activities in the field of international direct television broadcasting by satellite should encourage international cooperation. Such cooperation should be the subject of appropriate arrangements. Special consideration should be given to the needs of the developing countries in the use of international direct television broadcasting by satellite for the purpose of accelerating their national development.

It is underlined, that any international dispute that may arise from activities covered by these principles should be settled through established procedures for the peaceful settlement of disputes agreed upon by the parties to the dispute in accordance with the provisions of the Charter of the United Nations.

In accordance with paragraph 8 of this act, «states should bear international responsibility for activities in the field of international direct television broadcasting by satellite carried out by them or under their jurisdiction and for the conformity of any such activities with the principles set forth in this document». When international direct television broadcasting by satellite is carried out by an

international intergovernmental organization, the responsibility referred to in paragraph 8 above should be borne both by that organization and by the States participating in it.

In order to promote international cooperation in the peaceful exploration and use of outer space, States conducting or authorizing activities in the field of international direct television broadcasting by satellite should inform the Secretary-General of the United Nations, to the greatest extent possible, of the nature of such activities. On receiving this information, the Secretary-General should disseminate it immediately and effectively to the relevant specialized agencies, as well as to the public and the international scientific community.

A State which intends to establish or authorize the establishment of an international direct television broadcasting satellite service shall without delay notify the proposed receiving State or States of such intention and shall promptly enter into consultation with any of those States which so requests.

An international direct television broadcasting satellite service shall only be established after the conditions set forth in provisions of these principles above have been met and on the basis of agreements and/or arrangements in conformity with the relevant instruments of the International Telecommunication Union and in accordance with these principles.

Lecture 11

The legal regulations of space activities in the Russian Federation

1. The formation and development of the legislation on space activities in Russia.
2. The legal notion of space activities in the legislation of the Russian Federation.
3. The legal statuses of space objects and space infrastructure in Russia.
4. The legal status of a cosmonaut in Russia.
5. The legal grounds of management of space activities in the Russian Federation.

1. The formation and development of the legislation on space activities in Russia

Our country – the Russian Federation, or as it was earlier called – the USSR, is the first state in the world which started conducting its own national space program.

So on 4th of October 1957 the first space satellite was launched into Earth orbit by the USSR. Then, on 12th of April 1961 the first spacecraft with a man on board was successfully launched into outer space in the USSR as well.

In spite of this, there were not any laws on space activities in the Soviet Union for a long time. At that period of time, i.e. from 1957 till 1993, the legal regulations of space activities were defined by the special resolutions and decisions of such state and political bodies as the Politburo of the Central Committee of the Communist Party of the Soviet Union, the Council of Ministers of the USSR, the Military and Industrial Committee of the Presidium of the Council of Ministers of the USSR and others.

The most important issues of space activities in the USSR were regulated by the joint resolutions of the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers of the USSR.

For example, below is given the list of some of these resolutions on space activities of the Soviet period of time:

1) On 2nd of September 1958 the Council of Ministers of the USSR passed resolution № 569-264 «On the preparation of a man for space flight».

2) On 10th of December 1959 the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers of the USSR jointly adopted resolution № 1386-618 «On creation of automatic interplanetary space stations for landing on the Moon and flights to the Venus and Mars».

3) On 24th of September 1962 the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers of the USSR adopted the resolution on further exploration of the Moon. This resolution settled the decision of above mentioned organs to conduct the landing of a piloted space vehicle on the surface of the Moon.

4) The Soviet manned space program on the exploration of the Moon for the first time was definitely regulated on 3rd of August 1964. On that day joint resolution № 655-268 of the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers of the USSR was enacted. This joint resolution was devoted to the activities on the exploration of the Moon and outer space. This resolution pointed out that landing of a Soviet cosmonaut on the surface of the Moon is a priority goal of Soviet cosmonautics.

The following years of the Soviet period of time the similar legal acts relating to space activities had been adopted by various political and state bodies of the USSR. However, as it was noted above, there was not any space law in the Soviet period of time in Russia.

In 1991 and 1992 after the disintegration of the USSR the Commonwealth of Independent States, consisting of the former Soviet republics, was formed on the post-soviet territory. As a result of the disintegration of the USSR, the significant

transformations proceeded in the political and economic life of Russia. So, it has become necessary to establish the Russian own national legislation on space activities.

On 25th of February 1992 the President of the Russian Federation brought into force decree № 185 «On Space Activities Administration Structure in the Russian Federation». Corresponding to this presidential decree the federal executive body responsible for space activity - the Russian Space Agency was formed in the Russian Federation.

For comparison it is necessary to note the following:

- a) the first USA law on space activities – the «National Aeronautics and Space Act of 1958» was passed by the Congress of the USA on 29th of July 1958;
- b) the French Republic, in its turn, passed its first law on space activities – the Law on Establishment of the National Centre for Space Research on 19th of December 1961.

On 20th of August 1993 the Supreme Soviet of the Russian Federation passed the Law of Russian Federation «On Space Activity». It was the first law on space and space activity in the history of our country. On the 4th of October 1996 the State Duma of the Russian Federation adopted special Federal law № 147-FZ, according to which the Law on Space Activity was added and improved.

At present a new branch of the national legal system – the Russian Federation space legislation has already passed through its first stages of formation and development. Nowadays the Russian Federation space legislation consists of the Law on Space Activity, other federal laws, containing legal norms connected with space activities (for example: the Civil Code, the Air Code, the Land Code of the Russian Federation etc), Russian Federation presidential decrees, Russian Federation governmental regulations and other legal acts governing space activity under the jurisdiction of the Russian Federation.

As we can see, the Russian Federation space law is quite a new legal branch of the Russian national legislation.

2. The legal notion of space activities in the legislation of the Russian Federation

The content of the legal notion «a space activity» is determined clear and definitely in the Law of the Russian Federation on Space Activity.

In accordance with article 2 of this Law «for the purposes of this Law, space activity shall be defined as any activity directly connected with operations to explore and use outer space, including the Moon and other celestial bodies».

This article establishes that the main areas of space activities include:

- 1) scientific space research;
- 2) use of space technology for communications, including television and radio broadcasting;
- 3) remote sensing of the Earth from outer space, including environmental monitoring and meteorology;
- 4) use of navigation, topographical and satellite systems;
- 5) manned space missions;
- 6) use of space technology, materials and techniques for the purposes of the defence and security of the Russian Federation;
- 7) observation of objects and phenomena in outer space;
- 8) testing of technology in outer space conditions;
- 9) manufacturing of materials and other products in outer space;
- 10) other types of activities performed with the aid of space technology.

Besides, according to this article, space activity comprises the development (including the design, manufacturing and testing) and use (operating) of space technology, materials and techniques and the provision of other space related services, as well as international cooperation undertaken by the Russian Federation in the exploration and use of outer space.

The aims of space activity in the Russian Federation are stated in the 3rd article of the Law on Space Activity. So, space activity in Russia is conducted with the following aims:

- 1) furthering the economic development of the Russian Federation, promoting the welfare of its citizens through the judicious and effective use of space technology, materials and techniques and increasing the extent to which these are used;
- 2) consolidating and developing the scientific, technical and intellectual potential of the space industry and its infrastructure;
- 3) promoting the defence of the Russian Federation and ensuring its security;
- 4) refining and building up scientific knowledge of the Earth, outer space and celestial bodies;
- 5) developing and expanding the international cooperation undertaken by the Russian Federation with a view to its further integration within the global economy and in the interest of international security.

Corresponding to article 4 of the Law on Space Activity, space activity in Russia is conducted in accordance with the following legal principles:

- 1) use of advances of space science and technology to foster peace and international security;
- 2) mobilization of extra-budgetary resources for space activity, their allocation to be regulated by the State with guarantees provided that such allocation shall be in the State interests of the Russian Federation;
- 3) guarantee of the safe nature of space activity and protection of the environment;
- 4) participation of the Russian Federation on the basis of equal rights and mutual benefit in international cooperation in the field of space activities;
- 5) the international responsibility of the Russian Federation for space activity undertaken by it;
- 6) the judicious combination and balanced development of space technology and techniques used in scientific and socio-economic applications in the interests of the defence and security of the Russian Federation (referred to hereinafter as «dual-use space technology»).

There is a very important legal provision in the 4th article of the Law on Space Activity. It says that the space activity prohibited under international agreements to which the Russian Federation is party shall not be permitted.

Space activity in Russia, as well as the dissemination of information on space activity is conducted in conformity with legal requirements regarding protection of state, official and commercial secrecy and also of intellectual property and exclusive intellectual property rights.

3. The legal statuses of space objects and space infrastructure in Russia

In correspondence with paragraph 1 of article 130 of the Civil Code of the Russian Federation, a space object should be regarded as an immovable property. Because of this, the Civil Code of Russia contains the legal requirement, according to which a space object of the Russian Federation is a subject for a state registration.

So, article 17 of the Law on Space Activity, in its turn, states that a space object of the Russian Federation shall be subject to registration and shall bear markings certifying their ownership by the Russian Federation.

The Russian Federation shall retain jurisdiction and control over space objects registered in it during time spent by such object on the ground and at any stage of their flight in outer space or on celestial bodies, and also on their return to the Earth outside the jurisdiction of any state.

The rights of ownership of space objects shall remain unaffected during periods spent by such objects on the ground or at any stage of their flight in outer space or stay in outer space or on celestial bodies, and also on their return to the Earth, unless otherwise provided by the international treaties to which the Russian Federation is a party.

If a space object has been designed by Russian organizations and citizens jointly with foreign states, organizations and citizens or international organizations, issues relating to the registration of such object or to jurisdiction and control

thereof, or to rights of ownership thereof, shall be decided on the basis of the relevant international treaties.

Right of jurisdiction and control over space objects and of ownership thereof shall not affect the legal status of the area (segment) of outer space or the surface or substratum of the celestial body occupied by it.

In the direct vicinity of a space object of the Russian Federation, within the minimum zone necessary for ensuring the safety of space activity, rules may be established that shall be binding upon Russian and foreign organizations and citizens.

Article 19 of the Law on Space Activity regulates special aspects of space flight control. It states that the flight control of space objects of the Russian Federation at all stages, from their launch to the completion of the flight shall be effected by those organizations responsible for use (operation) of such objects.

Paragraph 2 of the same article says that the landing of space objects of the Russian Federation shall take place at the special landing sites for space objects. In the event of the occurrence of incidents, including accidents and disasters, in the course of space activity, space objects of the Russian Federation may land in other regions provided the competent state governmental authorities are duly notified.

Maneuvering of space objects in the airspace of the Russian Federation shall be effected with due regard for the legal requirements governing the use of the airspace of the Russian Federation. A space object belonging to a foreign state may execute a single innocent flight through the airspace of the Russian Federation for the purpose of returning it to the Earth, provided that the competent services of the Russian Federation are duly notified in advance of a time, place, trajectory and other conditions of such flight.

The Federal Space Agency of the Russian Federation shall notify the competent state authorities of the Russian Federation of the launch and landing of space objects of the Russian Federation and, where necessary, shall also notify thereof interested foreign states and international organizations.

In the case of the launch, landing or terminated existence of space objects of the Russian Federation outside its jurisdiction, the competent services of the Russian Federation shall perform their functions by agreement with the competent authorities of the interested foreign states.

Article 18 of the Law on Space Activity states the list of objects which jointly form the space infrastructure of the Russian Federation. According to this article, the space infrastructure of the Russian Federation comprises the following objects:

- 1) cosmodromes;
- 2) launching complexes and installations;
- 3) command and instrumentation complexes;
- 4) space object flight control centers and points;
- 5) data acquisition, storage and processing terminals;
- 6) space equipment storage bases;
- 7) fallout areas for separating components of space objects;
- 8) space object landing sites and take-off landing strips;
- 9) experimental base facilities for the development of space technologies;
- 10) cosmonaut training centers and equipment;
- 11) any other ground facilities and equipment used for space activities.

Space infrastructural facilities, including mobile facilities is deemed to be such to the extent that they are used for ensuring or conducting space activities.

In accordance with paragraph 2 of article 18 of the Law on Space Activity, the space infrastructural facilities which are federal property shall be under the operating control of state organizations in charge of their operation. The transfer of space infrastructural facilities which are federal property to the operating control, ownership or leasehold of other organizations may be permissible in accordance with the procedures established by the laws of the Russian Federation.

4. The legal status of a cosmonaut in Russia

Citizens of the Russian Federation who express the desire to take part in space flights and who meet the stipulated professional and medical requirements may be selected for training and for the conduct of space flights on the competitive basis. The procedures and conditions for the holding of competitions are determined in accordance with the Civil Code of the Russian Federation by the Federal Space Agency of Russia.

The procedures for the training of cosmonauts, the composition of crews for manned space objects and the approval of the flight program, as well as the rights and obligations of cosmonauts, the remuneration of their labour and other conditions of their professional activity are determined by contracts in accordance with the laws and other normative legislative acts of the Russian Federation.

A cosmonaut who is a citizen of the Russian Federation may be appointed as commander of the crew of a manned space object of the Russian Federation.

The commander of the crew of a manned space object of the Russian Federation is vested with the full authority necessary for the conduct of the space flight and leadership of the crew and other persons, participating in the flight.

The commander of the crew of a manned space object of the Russian Federation, within the scope of his (or her) competence has responsibility for the execution of the flight program, the safety of the crew and other persons participating in the flight, and the preservation of the space object and the property contained within it.

The Russian Federation shall retain jurisdiction and control over any crew of a manned space object registered in its territory during the time spent on the ground, at any stage of the space flight or stay in outer space or on celestial bodies, including extravehicular stay, and on the return of the space object to the Earth right up until the completion of the flight program, unless otherwise provided by the international treaties to which the Russian Federation is a party.

Citizens of foreign states who have undergone training for a space flight in the Russian Federation or have participated in a flight on board a manned space object of the Russian Federation shall be bound by the laws of the Russian Federation, unless otherwise provided by the international treaties to which the Russian Federation is a party.

Nowadays the Civil International Space Station is the only space program with a man on board, to which Russia is a party. This important international space project is realized on the basis of the intergovernmental Agreement Concerning Cooperation on the Civil International Space Station of 29th of January 1998. After this intergovernmental Agreement had been signed, the governmental space agencies of all Contracting Parties created together the Code of Conduct for the International Space Station Crew.

On 27th of October 2000 the Code of Conduct for the International Space Station Crew was approved in accordance with Resolution of the Government of the Russian Federation № 155-r.

5. The legal grounds of management of space activities in the Russian Federation

The legal provisions of section II of the Law of the Russian Federation on Space Activity say that «space activity shall be conducted under the authority of the Russian Federation» (paragraph 1 of article 5). At the same time, in accordance with paragraph 2 of article 5 of this Law, the President of the Russian Federation shall have overall responsibility for space activity. In connection with this, the President of Russia has the following special authorities:

- 1) to examine and approve the basic provisions of state policy on space activity;
- 2) to accord presidential status to space projects and programs of particular significance;

3) to resolve the most important issues concerning the space policy of the Russian Federation.

The 3rd paragraph of the same article defines the authorities of the Russian Federation Government in the sphere of space activity. So, the Government of the Russian Federation shall:

1) implement national space policy in the interests of science, technology, different sectors of economy and international cooperation activities of the Russian Federation;

2) coordinate the work of federal executive bodies and organizations involved in space activity;

3) examine and approve the Federal Space Program, the long-term space programs of the Russian Federation, the state order for the development, manufacture and delivery of space engineering and space infrastructural facilities and the state defence order for the development, manufacture and delivery of space weaponry and military technology;

4) put forward proposals, in accordance with established procedure, for the funding of the Federal Space Program;

5) ensure favorable conditions for the long-term development of space technology and techniques and implement a policy of state support for the rocket-engineering and space sector;

6) coordinate the international cooperation activities undertaken by the Russian Federation in the field of space and exercise supervisory responsibility for the development and conduct of the international space project undertaken by the Russian Federation;

7) within the limits of its competence, approve the normative legislative acts regulating procedure for the development, design, testing and use (operating) of space technology;

8) appoint government committees on the tasting of space technology.

Besides, the Law on Space Activity states the competence of the federal executive body responsible for space activity in Russia. So, corresponding to

article 6 of this Law, the federal executive body responsible for space activity shall exercise such responsibility in the interests of science, technology and different sectors of the economy, shall organize work to develop space technology with scientific and socio-economic applications and, in cooperation with federal executive defence body, shall also ensure the development of dual-use space technology as part of the Federal Space Program.

To this end, the aforementioned body shall:

- 1) implement national space policy in conjunction with the federal executive defence body and other interested federal executive bodies and organizations engaged in the development and use of space technology;
- 2) draw up a draft Federal Space Program;
- 3) place the state order for the development, manufacture and delivery of space technology and space infrastructural facilities with scientific and socio-economic applications, including an order in connection with the implementation of the international space projects undertaken by the Russian Federation;
- 4) arrange, in accordance with established procedure, for the use (operation) of space technology in support of the Federal Space Program;
- 5) in conjunction with the federal executive defence body, place the state order for the development, manufacture and delivery of dual-use space technology and infrastructural space facilities;
- 6) organize system-level research to provide material justifying the main areas of the development of space technology with scientific and socio-economic applications and, in conjunction with the federal executive defence body, that of dual-use space technology;
- 7) in conjunction with other interested federal executive bodies, arrange for scientific research and experimental design work to develop space technology with scientific and socio-economic applications, the procurement of space technology based on serial production and, in conjunction with the federal executive defence body, ensure its use (operation);

- 8) organize and coordinate work in connection with commercial space projects and ensure their implementation;
- 9) in conjunction with the federal executive defence body and other interested federal bodies, ensure the development of space infrastructure;
- 10) in conjunction with other federal executive bodies, organize and conduct state-run flight tests of space technology with scientific and socio-economic applications;
- 11) issue licenses for various types of space activity;
- 12) organize the certification of space technology with scientific and socio-economic applications;
- 13) in conjunction with the competent state services, ensure the safety of space activity;
- 14) cooperate with organizations abroad and with international organizations on space related issues and conclude appropriate international agreements in accordance with established procedure;
- 15) within the limits of the allocated budgetary funds, finance work in connection with the Federal Space Program;
- 16) perform other functions as prescribed by the Government of the Russian Federation.

The Law on Space Activity also states that in order to perform these functions, the federal executive body responsible for space activity may establish local organs.

It is necessary to note that the federal executive body responsible for space activity in Russia is the Federal Space Agency now.

On 25th of February 1992 the President of the Russian Federation brought into force decree № 185 «On Space Activities Administration Structure in the Russian Federation». Corresponding to this presidential decree the federal executive body responsible for space activity - the Russian Space Agency was formed in the Russian Federation. At that time a new state body was called «the

Russian Space Agency». From the moment of its formation, the Russian federal executive body responsible for space activity passed several steps of evolution.

On 25th of May 1999 the President of the Russian Federation enacted decree № 651 «On Federal Executive Power Bodies Structure». In correspondence with this decree, the Russian Space Agency was transformed into the Russian Aero-Space Agency. However, on 9th of March 2004, decree № 314 of the President of the Russian Federation transformed the Russian Aero-Space Agency into the Federal Space Agency of Russian Federation.

It is necessary to point out that article 9 of the Law on Space Activity contains a very important legal provision, according to which this Law establishes the authorization (licensing) procedure for the pursuit of all space activities both for scientific and socio-economic purposes in the Russian Federation. Licensing requirements apply to the space activity pursued by organizations and citizens of the Russian Federation or to the space activity pursued by foreign organizations and citizens under the jurisdiction of the Russian Federation where such activity includes the testing, manufacture, storage, preparation for launch or launch of space objects, or control of space flights.

More detail development of this legal norm of the Law was presented by the legal standards of the Regulations of Space Activities Licensing. So, on 30th of June 2006 the Government of the Russian Federation adopted Resolution № 403 «On Adoption of Regulations of Space Activities Licensing». In particular, this normative legal act defines the types, forms and periods of validity of licenses, the conditions and procedures for their issue, withholding, suspension or termination, and other aspects of licensing.

The list of legal acts

International legal acts

1. Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water. Signed in Moscow on August 5, 1963.
2. United Nations General Assembly Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space. Adopted on December 13, 1963.
3. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. Opened for signature in Moscow, London and Washington on January 27, 1967.
4. Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space. Opened for signature in Washington, London and Moscow on April 22, 1968.
5. Convention on the International Liability for Damage Caused by Space Objects. Opened for signature in London, Moscow and Washington on March 29, 1972.
6. Convention on Registration of Objects Launched into Outer Space. Opened for signature in New York on January 14, 1975.
7. Agreement Governing the Activities of States on the Moon and Other Celestial Bodies. Opened for signature in New York on December 18, 1979.
8. Agreement Concerning Cooperation on the Civil International Space Station was signed in Washington by the governments of Canada, Member States of the European Space Agency, Japan, the Russian Federation and the United States of America. Signed on January 29, 1998.
9. Code of Conduct for the International Space Station Crew. Approved on October 27, 2000 by Resolution № 155-r of the Government of the Russian

Federation «On Approval of the Code of Conduct for the International Space Station Crew».

Normative legal acts of the Russian Federation

1. Law of the Russian Federation «On Space Activity», 20 August, 1993, № 5663-1.
2. Federal Law of the Russian Federation «On Licensing for Certain Types of Activities», 8 August, 2001, № 128-FZ.
3. Declaration of the Supreme Council of the Russian Federation «On Space Policy Priorities of the Russian Federation», 27 April, 1993, № 4879-1.
4. Decree of the President of the Russian Federation «On Space Activities Administration Structure in the Russian Federation», 25 February, 1992, № 185.
5. Decree of the President of the Russian Federation «On Realization of State Policy in Rocket and Space Industry Area», 20 January, 1998, № 54.
6. Decree of the President of the Russian Federation «On Federal Executive Power Bodies Structure», 25 May, 1999, № 651.
7. Resolution of the Government of the Russian Federation «On Space Activities State Support and Provision in the Russian Federation», 11 December, 1993, № 1282.
8. Resolution of the Government of the Russian Federation «On Arrangements For Improving Efficiency of and Structure Rearrangement in Rocket and Space Industry Sector», 25 June, 1994, № 866.
9. Resolution of the Government of the Russian Federation «On Licensing for Certain Types of Activities», 24 December, 1994, № 1418.
10. Resolution of the Government of the Russian Federation «On Space Activities Implementation for Benefit of Economy, Science and Security of the Russian Federation», 7 August 1995, № 791.

11. Resolution of the Government of the Russian Federation «On Adoption of Regulations of Space Activities Licensing», 2 February, 1996, № 104.

12. Resolution of the Government of the Russian Federation «On Approval of National Space Policy Conception of the Russian Federation», 1 May, 1996, № 533.

13. Resolution of the Government of the Russian Federation «On Arrangements for Implementing the Decree of the President of the Russian Federation of 20 January, 1998, № 54 «On Realization Of State Policy in Rocket and Space Industry Area»», 12 May, 1998, № 440.

14. Resolution of the Government of the Russian Federation «On Use of Military Space Systems and Complexes for Services in Space Activities Area», 8 April, 1999, № 394.

15. Resolution of the Government of the Russian Federation «Issues of Russian Aeronautics and Space Agency», 15 July, 1999, № 827.

16. Resolution of the Government of the Russian Federation «On Adoption of Regulations for Russian Aeronautics and Space Agency», 25 October, 1999, № 1186.

17. Resolution of the Government of the Russian Federation «On Licensing for Certain Types of Activities», 11 April, 2000, № 326.

18. Resolution of the Government of the Russian Federation «On Approval of the Code of Conduct for the International Space Station Crew», 27 October, 2000, № 155-r.

19. Resolution of the Government of the Russian Federation «On Adoption of Regulations on State Commission for Space Systems and Complexes Flight Tests», 30 December, 2000, № 1036.

20. Resolution of the Government of the Russian Federation «On Organization of Licensing for Certain Types of Activities», 26 January, 2006, № 45.

21. Resolution of the Government of the Russian Federation «On Adoption of Regulations for Federal Space Agency of the Russian Federation», 26 June, 2004, № 314.

22. Resolution of the Government of the Russian Federation «On Adoption of the Federal Space Program of the Russian Federation», 22 October, 2005, № 635.

23. Resolution of the Government of the Russian Federation «On Adoption of Regulations of Space Activities Licensing», 30 June, 2006, № 403.