**Russia's achievements**

Russia is proud of its achievements in satellite technology and investigation of outerspace. On October 4, 1957, the world's first artificial satellite was launched in our country. With "Sputnik-1" a great deal of programmes of space exploration were implemented. Over the next few years a number of unmanned spaceships of various kinds, ranging from meteorological and communications satellites to lunar probes were launched.

On April 12, 1961, the Soviet Union launched "Vostok-1". For the first time in the history of mankind a manned spacecraft was launched into outerspace. It carried Yury Gagarin in a single orbit around the Earth. German Titov piloted "Vostok-2" spacecraft. It was launched on August 6, 1961, on the first manned spaceflight of more than a single orbit. Valentina Tereshkova, the first woman to travel into space, was launched on June 16, 1963 in "Vostok-6", which completed 48 orbits in 71 hours. In space at the same time was Valery Bykovsky, who had been launched two days earlier in "Vostok-5"; both of them landed on June 19.

"Vostok" flights had demonstrated that man could function while weightless in space. The "Vostok" spacecraft enabled the preparation of new, more complicated flights. Taking over the traditions of the single-sitter "Vostok", multi-sitter "Voskhod" and "Soyuz" spacecraft began to circle around the orbits of the Earth. "Voskhod-2", a two-piloted spacecraft was constructed in such a way that the cosmonaut could leave the ship during flight. On March 18, 1965, Aleksey Leonov left the spacecraft through an airlock to become the first man to float free in space.

Developed for the Earth-orbital space station programme "Soyuz" aircraft were equipped for extended missions of scientific experimentation while in the Earth orbit of up to 30 days duration. There were 40 manned and unmanned "Soyuz" spaceships which were launched between 1967 and 1981. It should be stressed that 30 "Soyuz" flights involved its docking with an orbiting "Salyut" space station. The first record for the longest manned mission in spaceflight history was set in 1981 by the crew of "Soyuz-35". It remained on board "Salyut-6" for 185 days. Other notable "Soyuz" flights include "Apollo-Soyuz" Test Project, the first joint space venture undertaken by the United States and the Soviet Union. During this mission, conducted in July 1975, a three-man U.S. "Apollo" spacecraft met and docked with the two-man "Soyuz-19" craft. The crews performed joint experiments for two days. The joint "Apollo-Soyuz" mission achieved all its major objectives.

"Salyut-1", launched April 19, 1971, was the world's first space station. In 1986 the Soviet Union launched a more advanced type of space station "Mir". This station - a large, permanent, multimanned orbiting complex - was designed to accommodate various modules for crew living quarters and research facilities. On March 13, 1986, cosmonauts Leonid Kizim and Vladimir Solovyev were sent aboard a "Soyuz" spacecraft to dock with "Mir" and become its first occupants. They spent 53 days adjusting equipment and bringing the complex into workable order. Other cosmonauts later visited the station. In 1987 Yury Romanenko set a new endurance record of 326 days in space. The previous record 237 days, was set in 1984 by a Soviet crew in "Salyut-7" space station. In the 1970s and 1980s our scientists concentrated their efforts on numerous experiments into outerspace which involved the cosmonauts' repeated docking. Various "Salyut" orbiting laboratories were equipped for extended missions of scientific experimentation. On board "Salyut" stations our cosmonauts conducted scientific research and made valuable observations of the solar system.

- How long did it take Yury Alekseyevich Gagarin to orbit the Earth?

- It took Yury Alekseyevich Gagarin 1 hour 29 minutes to orbit the Earth.

- How was the first cosmonaut awarded?

- Yury Gagarin's spaceflight brought him world-wide fame. The first cosmonaut was awarded the Order of Lenin and given the titles of Hero of the Soviet Union and Pilot Cosmonaut of the Soviet Union. Monuments were raised to him and streets were renamed in his honour across the Soviet Union.

- What do you know about the first cosmonaut?

- In 1951 Yury Gagarin, the son of a carpenter, finished as a moulder a trade school near Moscow. He continued his studies at the industrial college at Saratov. At the same time he took a course in flying. When Gagarin finished this course he entered the Soviet Air Force cadet school at Orenburg. He finished it in 1957. Yury Gagarin never went into space again. He participated in training other cosmonauts. Yury Gagarin visited several countries following his historic flight. From 1962 he served as a deputy to the Supreme Soviet.

- What do you know about the second Soviet cosmonaut?

- German Titov, the second Soviet cosmonaut, was accepted in 1953 for aviation cadet training. In 1957 he graduated from the Stalingrad Flying Academy as a jet fighter pilot. In 1960 Titov entered cosmonaut training. During this course he received the Order of Lenin for an engineering proposal. The "Vostok-2" flight lasted 25 hours 18 minutes. Titov was given a code name "Eagle." His radio signal, "I am Eagle!" was spoken with excitement and impressed people all over the world. After his flight Titov became a Hero of the Soviet Union. In 1962 he became a deputy of the Supreme Soviet. He held the position until 1970. In 1968 Titov graduated from the Zhukovsky Air Force Engineering Academy. He became a major general in 1975. In subsequent years Titov was an assistant to the chief editor of the Journal "Aviation and Cosmonautics".

- When did the USA launch the first satellite?

- The first U.S. satellite "Explorer-1" was launched on January 31, 1958, about four months after "Sputnik-1".

- How many satellites were launched by our country and the United States?

- For forty years both nations successfully launched more than 5,000 satellites and space probes of all varieties for conducting scientific research, communications, meteorological, photographic reconnaissance, and navigation satellites, lunar and planetary probes, and manned space flights.

- When did the USA launch its first manned spacecraft?

- On May 5, 1961, the United States launched its first manned spacecraft, a "Mercury" capsule in which astronaut Alan Shepard, Jr., made a 15 minute suborbital flight.

- When were men landed on the surface of the Moon?

- On July 20, 1969, the United States landed men on the surface of the Moon.

- Who was the first to step on the Moon?

- On July 16, 1969, Armstrong, with Edwin Aldrin and Michael Collins, blasted off in the "Apollo-11" vehicle toward the Moon. Four days later, the "Eagle" lunar landing module, guided manually by Armstrong, touched down on a plain near the southwestern edge of the Sea of Tranquillity. On July 20, 1969, Armstrong stepped from the "Eagle" onto the Moon's dusty surface with the words, "That's one small step for [a] man, one giant leap for mankind." Armstrong and Aldrin left the module for more than two hours and deployed scientific instruments, collected surface samples, and took numerous photographs. On July 21, after 21 hours and 36 minutes on the Moon, they lifted off to rendezvous with Collins and begin the voyage back to the Earth. The astronauts splashed down in the Pacific on July 24. They visited 21 nations.

- How many lunar landings were made by the USA?

- The USA made five more lunar landings on subsequent "Apollo" flights. During the lunar landings astronauts explored the surface of the Moon, collected rock and soil samples, and performed a variety of scientific experiments. The last lunar landing was made in December 1972.

- What has the USA devoted its attention to since the mid- 1970s?

- Since the mid-1970s, the United States has devoted its attention to developing the space shuttle, a reusable space vehicle that lifts off like a rocket and lands like an ordinary aeroplane. The shuttle craft have been used to deploy and repair satellites in the Earth orbit.

- When did the United States launch the first reusable manned vehicle?

- On April 12, 1981 the United States launched the first reusable manned vehicle. It was the 20th anniversary of manned space flight.

- What can you say about planetary studies carried out by the U.S. and Soviet scientists?

- Although the United States and the Soviet Union made manned flight a major goal in their space programmes, during the 1960s and '70s, the scientists of both countries undertook ambitious planetary studies with unmanned deep-space probes. The most significant missions were the "Viking" landings on the Mars; the "Voyager" flybys of the Jupiter, the Saturn, and the Uranus. The Soviet Union did not land men on the Moon. It launched a series of robot lunar probes ("Luna" and "Zond") that returned important data and soil samples. "Luna-16", for example, made a soft-landing on the Moon in September 1970, obtained a core sample of soil, and returned it to the Earth in a sealed capsule.

- What do people want to gain by exploring outer space?

- The flight into outerspace allows man to penetrate into new spheres of unpredictable discoveries. Scientists are interested in space exploration because today physics, chemistry, biology, astronomy need new data, which can not be found on the Earth. Moreover, Space Age has given mankind a chance to find thinking creatures in other Galaxies. It is believed that there are more than 100 million civilisations throughout the world. It is known far and wide that since early times the human beings have been interested in the study of the Universe. Their hopes have been connected with the discovery of intellectual creatures on the planets of other galaxies. The idea of other worlds existing in the Universe cost Giordano Bruno his life. Now all the beliefs may become true, and living beings may be found in the distant worlds of other solar systems.