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### IV МЕЖРЕГИОНАЛЬНАЯ

### НАУЧНО - ИССЛЕДОВАТЕЛЬСКАЯ КОНФЕРЕНЦИЯ ШКОЛЬНИКОВ

### « ШАГ В НАУКУ»

ТЕМА ПРОЕКТА

Stars of space

Работу выполнила

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**Introduction**

People have dreamed of travelling in space for thousands of years. But it was not until 1957 that it became a reality. On October 4, 1957 the USSR launched the first man-made satellite into space. It was called Sputnik 1. On April 12, 1961 the soviet cosmonaut Yuri Gagarin became the first man to orbit the Earth. The first spacewoman in the world was Valentina Tereshkova. She made 48 orbits in 1963 in her Vostok 6. On July 20, 1969 the American astronaut Neil Armstrong became the first man to set foot on the Moon. In 1986 the Russian space station Mir was launched. Progress is inevitable and soon we'll be able to visit and even live on other planets.The 21st century may turn science fiction into science fact.

The purpose of our work is to find information about Russian pilots and cosmonauts.

In accordance with this goal, the following tasks are:

- to study the documents and materials using sites, archival material.

- save information for future generations

Our work is called “Stars of space”

We`ve focused on such question as: When did man first begin to think of space travel? Who are Stars of space ?

I think this theme is very topical nowadays because space is one of the most important parts of our life. The aim of our work is to research as much as possible information about Russian pilots and cosmonauts. During the study we used three methods: analysis, the searching method and the analytic one.

**When did man first begin to think of space travel?**

Man began to think of space travel in the second century A. D. At that time a Greek, Lucian of Samos, wrote a fantastic story about a man who was carried to the Moon by a storm. In his second story about space, Lucian's hero flew to the Moon with a pair of wings which he had made himself.

But for the next 1400 years, in the years of the inquisition, people could not even think of travelling to the Moon.

About 300 years ago the famous Italian astronomer Galilei looked through his telescope and told people about the other worlds which he had seen. Again people began to think of reaching other planets.

In 1634, there appeared astory about a journey to the Moon by Johannes Kepler, the German astronomer. He discovered how the planets moved around the Sun. Kepler was a scientist but in his book his hero was carried to the Moon by "magic moon people", who could fly through space. Kepler gave a detailed description of the Moon which he had seen through his telescope.

After Kepler's book, there were many others about space travel. The first serious story of space travel was written in 1640 by Bishop Wilkins of England. He described physical conditions on the Moon and he also said about the ways in which man could possibly live on the Moon. The first man who wrote about a rocket as a spaceship was the Frenchman, Cyrano de Bergerac. In his book his space travellers flew to the Moon and the Sun in the rocket.

When those books were written, nobody seriously thought about space travel. Then in 1865 Jules Veme, the French novelist, wrote the story "From the Earth to the Moon", in which he tried to show the scientific principles of space travel. By the time that H. G. Wells, the English author, wrote "The First Men on the Moon" in 1901, man was already at the beginning of a new era in the development of air travel and conquering outer space.

**Stars of space**

**Yuri Gagarin** was a Soviet pilot and cosmonaut. He became the first person in the history to travel into outer space.

Yuri Gagarin was born in 1934. His parents had four children in total. In September 1941 he went to school, but soon the village where he lived was occupied by the German army. Only in 1943 Yuri continued his studies at school.

In 1951 Gagarin entered the Saratov Industrial Technical School and later joined local flying club. He completed his studies at the Technical School with distinction, achieved much success and performed his first flight on a Yak-18 trainer aircraft.In 1955 Yuri Gagarin joined the Soviet Army. Later he was given the qualification of a military pilot.

In 1959 Gagarin was selected for the Soviet space program. He underwent special training which tested his physical and psychological endurance. Gagarin was chosen out of 20 candidates upon the Commission's decision.

On 12 April 1961 Gagarin boarded spaceship “Vostok 1”. The main purpose of the flight was to check whether it is possible for a human being to stay in outer space on a specially equipped spacecraft.

During the flight Gagarin recorded everything, he ate and drank. He orbited the Earth once and finished his flight. It lasted 108 minutes. Because of the failure of the braking system Gagarin landed 110 km away from the destination.

After his flight Gagarin often went to foreign countries. Those trips took nearly all his time. In 1966 Gagarin resumed his training for the next flight into space. But that time he was chosen to be a backup pilot.

In March 1968 Gagarin died in a crash during a routine training flight.

During his life Gagarin was given several ranks and awarded several medals and orders. Many streets, institutions, crafts and aircrafts are named after Yuri Gagarin. The town of Gzhatsk was renamed Gagarin in honour of the first person to travel into space

**Gherman Stepanovich Titov** was a [Soviet](https://en.wikipedia.org/wiki/Soviet_Union) [cosmonaut](https://en.wikipedia.org/wiki/Astronaut) who, on 6 August 1961, became the second human to orbit the Earth, aboard [Vostok 2](https://en.wikipedia.org/wiki/Vostok_2), preceded by [Yuri Gagarin](https://en.wikipedia.org/wiki/Yuri_Gagarin) on [Vostok 1](https://en.wikipedia.org/wiki/Vostok_1). Titov was born in the village of [Verkhneye Zhilino](https://en.wikipedia.org/wiki/Kosikhinsky_District) in the [Altai Krai](https://en.wikipedia.org/wiki/Altai_Krai) and went to school at the Stalingrad Military Aviation School. After graduating as an air force pilot, he was selected for cosmonaut training in 1960. He flew the [Vostok 2](https://en.wikipedia.org/wiki/Vostok_2) mission launched on 6 August 1961. It lasted for 25.3 hours and he performed 17 orbits of the Earth. His call sign was *Eagle*. He landed close to the town of [Krasny Kut](https://en.wikipedia.org/wiki/Krasny_Kut%2C_Saratov_Oblast) in [Saratov Oblast](https://en.wikipedia.org/wiki/Saratov_Oblast), Russia. A month short of 26 years old at launch, he remains the youngest person to fly in space. Titov was a member of the [Communist Party of the Soviet Union](https://en.wikipedia.org/wiki/Communist_Party_of_the_Soviet_Union), as were almost all the Soviet cosmonauts.

He was the fourth person in space, counting [suborbital](https://en.wikipedia.org/wiki/Suborbital) voyages of US astronauts [Alan Shepard](https://en.wikipedia.org/wiki/Alan_Shepard) and [Gus Grissom](https://en.wikipedia.org/wiki/Gus_Grissom). A month short of 26 years old at launch, he remains the youngest person to fly in space. Titov's flight finally proved that humans could live and work in space. He was the first person to orbit the Earth multiple times (a total of 17), the first to pilot a spaceship and to spend more than a day in space. He was also the first to sleep in orbit and to suffer from [space sickness](https://en.wikipedia.org/wiki/Space_sickness).

Titov made the first manual photographs from orbit, thus setting a record for modern [space photography](https://en.wikipedia.org/wiki/Space_photography). He also was the first person to film the Earth using a professional quality Konvas-Avtomat movie camera, which he used for ten minutes.

In his subsequent life Titov continued to work for the [Soviet space program](https://en.wikipedia.org/wiki/Soviet_space_program), and played a major role in the [Spiral project](https://en.wikipedia.org/wiki/Spiral_project) where he trained to become the first pilot of an orbital [spaceplane](https://en.wikipedia.org/wiki/Spaceplane). However, after the death of Yuri Gagarin in a military aircraft accident in 1968, the Soviet government decided it could not afford to lose its second cosmonaut, and so Titov's career as [test pilot](https://en.wikipedia.org/wiki/Test_pilot) ended. Titov served in the [Soviet Air Force](https://en.wikipedia.org/wiki/Soviet_Air_Force), attaining the rank of [colonel-general](https://en.wikipedia.org/wiki/Colonel-general). In his final years in post-Soviet Russia he became a Communist politician. Despite having been chosen second, after Gagarin, to fly into space, it was Titov who later proposed the Soviet Government regularly celebrate [Cosmonautics Day](https://en.wikipedia.org/wiki/Cosmonautics_Day) on April 12, the day of Gagarin's flight.

**Russia and the USSR**

* [Hero of the Soviet Union](https://en.wikipedia.org/wiki/Hero_of_the_Soviet_Union) № 11158 (9 August 1961)
* [Order of Merit for the Fatherland](https://en.wikipedia.org/wiki/Order_of_Merit_for_the_Fatherland), 3rd Class (7 September 1995) – for services to the state, achievements in work and significant contribution to strengthening friendship and cooperation between peoples
* Two [Orders of Lenin](https://en.wikipedia.org/wiki/Orders_of_Lenin) (17 June and 9 August 1961)
* [Order of the October Revolution](https://en.wikipedia.org/wiki/Order_of_the_October_Revolution) (21 February 1985)
* [Order of the Red Banner of Labour](https://en.wikipedia.org/wiki/Order_of_the_Red_Banner_of_Labour) (15 January 1976)
* [Lenin Prize](https://en.wikipedia.org/wiki/Lenin_Prize) (1988)
* [Medal "For the Development of Virgin Lands"](https://en.wikipedia.org/wiki/Medal_%22For_the_Development_of_Virgin_Lands%22) (August 1961)
* Honoured specialist of the Armed Forces of the USSR (15 August 1991) – for outstanding service to the Soviet state in the country's defence capacity and professional skill
* [Honoured Master of Sports](https://en.wikipedia.org/w/index.php?title=Honoured_Master_of_Sports&action=edit&redlink=1) (1961)
* [Pilot-cosmonaut of the Soviet Union](https://en.wikipedia.org/wiki/Pilot-cosmonaut_of_the_Soviet_Union) (9 August 1961)

In 1963, cosmonaut **Valentina Tereshkova** became the first woman to travel in space aboard Vostok 6.As a young woman, Valentina Tereshkova worked in a textile mill and parachuted as a hobby. She was chosen to be trained as a cosmonaut in the USSR’s space program. On June 13, 1963, she became the first woman to travel into space. In just under three days, she orbited the earth 48 times. After her space flight, she served in the Communist Party and represented the USSR at numerous international events.

The second of three children born to Vladimir Tereshkova and Elena Fyodorovna Tereshkova, Valentina Tereshkova was born on March 6, 1937 in Bolshoye Maslennikovo, a village in western Russia. When she was two years old, father was killed fighting in World War II. Her mother raised Valentina, her sister Ludmilla and her brother Vladimir, supporting the family by working in a textile mill.

Valentina began attending school when she was eight or 10, and then started working in the textile mill in 1954. She continued her education through correspondence courses, and learned to parachute in her spare time. It was her parachuting experience that led to her being chosen, in 1962, for training as a cosmonaut in the Soviet space program. During the late 1950s and 1960s, the Space Race between the United States and the Soviet Union escalated for space travel supremacy. The competitiveness between the two nations for "one upping" achievements was fierce and the Soviets were determined to be the first to send a woman into space.

Four women were chosen to become cosmonauts, but only Tereshkova actually went into space. On June 16, 1963, Vostok 6 was launched, with Tereshkova aboard. The first woman to travel in space, she called out, “Hey sky, take off your hat. I’m on my way!” as the craft took off. Tereshkova orbited the earth 48 times in 70.8 hours—just under three days. (By way of comparison, Yuri Gagarin, the first man in space, orbited the earth once; and the four American astronauts who flew before Tereshkova orbited a total of 36 times.) While she was orbiting, she spoke with Soviet leader [Nikita Khrushchev](https://www.biography.com/political-figure/nikita-khrushchev), who said, “Valentina, I am very happy and proud that a girl from the Soviet Union is the first woman to fly into space and to operate such cutting-edge equipment.

**Conclusion**

I want to note that our school is also proud of its graduate related to space-Candidate of Technical Sciences-Kirillovichev A.V. Alexander Viktorovich 1977 graduate of "Secondary School No. 2 of Pugachev", gold medalist. In 1982, he graduated from the Military Engineering Academy named after A. F. Mozhaisky with a red diploma. He is famous for his scientific achievements. He worked at the Center of the Research Institute of Space Facilities of the Ministry of Defense, defended his dissertation. The main qualities that helped the formation of his personality, he considers-purposefulness, ability to work, courage.

Summarizing all our study we should be noted that we have achieved the main results.

In conclusion I’d like to say that Russia wants the space exploration to be based on broad international cooperation. Many international crews went up as well. Space exploration is quickly progressing and it seems that soon we’ll be visiting other planets and even living on them. The 21st century may be the turning point. Next step is the first moonbase with scientists living in it. Other than that, people are planning to land on the nearest planet Mars soon to explore its surface.

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