VOSTOK 1

First Human in Space

人类征服太空的历程
（英汉读本）

Michael D. Cole 著
高铁铮 译

广西科学技术出版社

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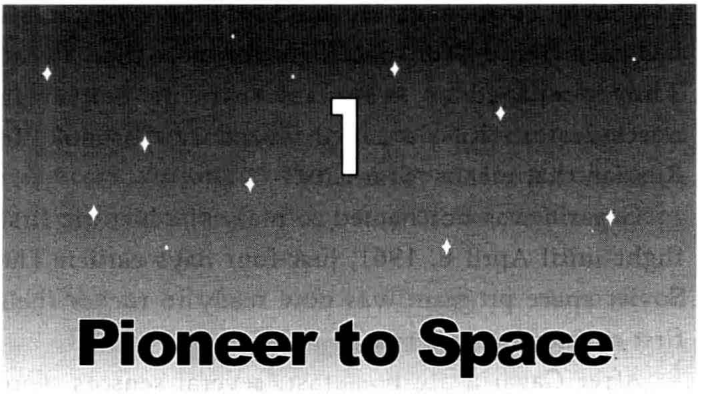
Soviet cosmonaut Yuri Gagarin was the first human in space.



1

Pioneer to Space

"Yuri, it's time to get up."

The doctor had no trouble waking Yuri Gagarin in the early morning of April 12, 1961.

"How did you sleep?" the doctor asked.

"As I was taught to," Gagarin said with a smile. The twenty-seven-year-old Soviet pilot was eager for what lay ahead that day. He was about to live a pilot's dream. Today he would attempt to fly where no human being had flown before.

The huge white Vostok rocket sat at the Tyuratum launch site in the Soviet Union. In a few hours Gagarin would climb aboard the rocket and blast off from the launchpad. If all went well, he would become the first human being to fly into space and orbit Earth.

Yuri Gagarin was a Russian who served his country

as a Soviet cosmonaut. He and his fellow cosmonauts had been training for spaceflight for more than a year. They prepared at a special training center in northwestern Russia called Zvezdniy Gorodok. In Russian that means "Star City."

Gagarin was not named to make the historic first flight until April 8, 1961, just four days earlier. The Soviet space program was now ready to rocket their first cosmonaut into space.

After Gagarin ate breakfast, several sensors were attached to his body. They would monitor his heartbeat, breathing, and other bodily functions during the flight. Then Gagarin and his backup pilot, Gherman Titov, were helped into their spacesuits.

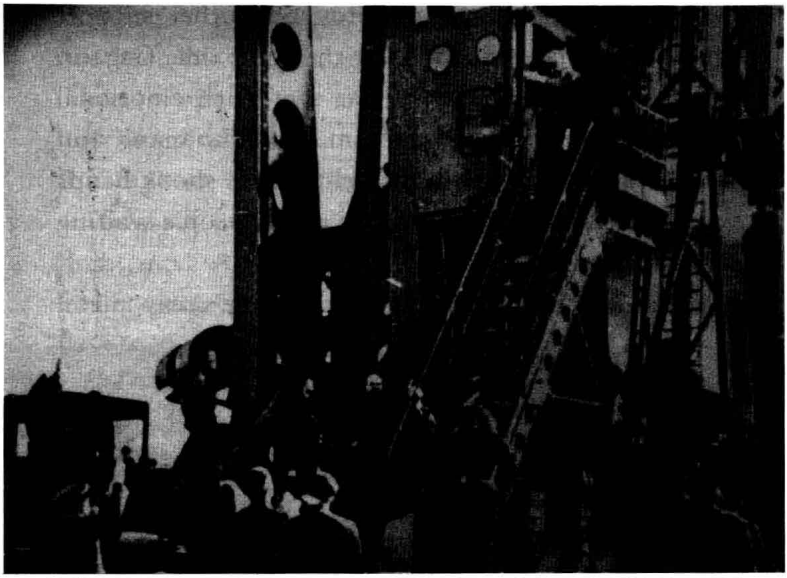
The suits included a special pair of long underwear that fit over the biosensors. Next came the pressure suit to protect Gagarin or Titov in case the cabin of the spacecraft failed. Then they stepped into some bright orange coveralls. The color would help the recovery team spot the cosmonaut after he landed.

Finally came the gloves, boots, and the large white helmet. Just above the helmet's visor were the large letters CCCP in red. These letters of the Russian alphabet would translate to USSR in the English alphabet. The letters stood for Union of Soviet Socialist Republics. Gagarin and Titov were now ready for the drive to the waiting spacecraft. The countdown had already begun.

A bus carried Gagarin, Titov, and other support people to the launchpad. After the short ride, Gagarin stepped from the bus. He was met with emotional applause from the large team of technicians and engineers working at the launchpad. He shook hands and exchanged hugs with many of the people waiting at the foot of the rocket.

Then he climbed awkwardly up the steep metal

Gagarin is checked by doctors before his spaceflight on April 12, 1961.



Yuri Gagarin waves to the crowd before entering the elevator which would take him up to Vostok 1.

staircase leading to the elevator. He turned and waved to the crowd of engineers, Soviet government officials, and military officers below. Before he stepped into the elevator with the rocket's chief designer, Gagarin said a few words.

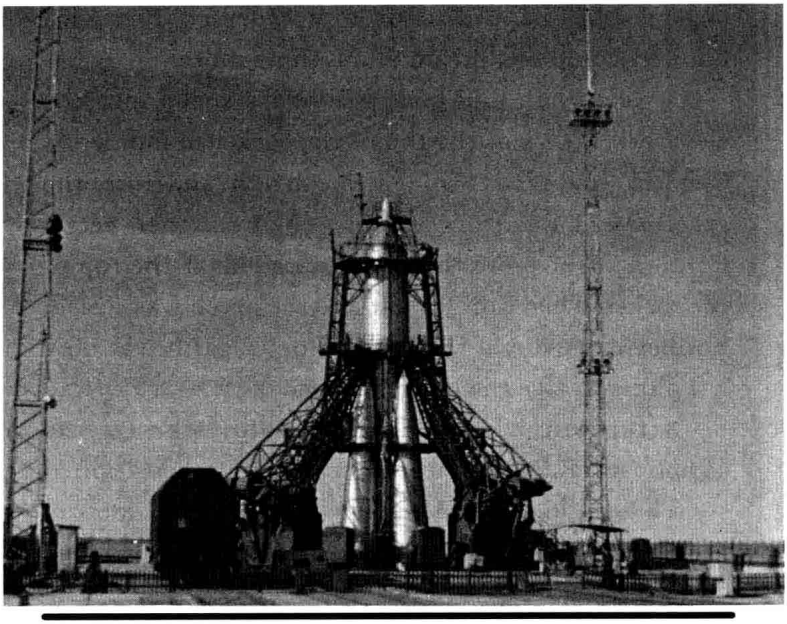
"At this instant, the whole of my life seems to be condensed into one wonderful moment," he said. "Of course I am happy. In all times . . . the greatest happiness for man has been to take part in new discoveries. To be the first to enter the cosmos, to

engage single-handed in an unprecedented duel with nature—could one dream of anything more!"

Gagarin then said good-bye and stepped into the elevator. He was at the top of the rocket in moments. Gagarin squeezed through the hatch and into the spacecraft. He and the rocket's chief designer, Sergei Korolev, spent more than an hour alone at the top of the rocket. Then Korolev left and the hatch was sealed. Korolev came down in the elevator. Gagarin was now left alone to face the dangers ahead.

"Attention Earth," Gagarin said, "this is the cosmonaut. Radio connection tested. Initial position of switch on guidance system panel correct. Globe in

Before the flight of Vostok 1, *Yuri Gagarin (left) talks with Sergei Korolev (right), the spaceship's chief designer.*



Minutes before liftoff, Vostok 1 *rests on the launchpad.*

starting position. . . . Am feeling fine. Ready for liftoff."

Another hour passed as Gagarin waited in *Vostok 1.* The countdown was delayed while a faulty valve was repaired. Soon the countdown resumed and the historic moment approached. Gagarin heard the final commands on the radio headset in his helmet.

"Switch to Go position!" said a voice from the control room.

"Air purging! Idle run!" said another. The fuel tower disconnected and slowly backed away from the rocket.

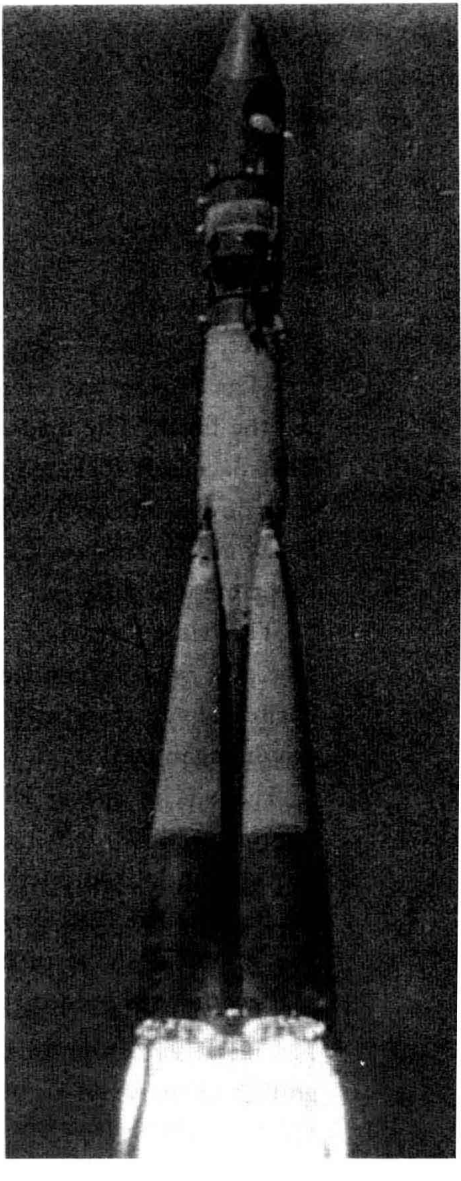
"Ignition!" The power cable arm swung away. The spacecraft was now on internal power. It was free of all connections to the launch towers. The rocket and Yuri Gagarin were ready for humanity's first flight into space.

Flames of red and white flashed out from the rocket's huge engines. Gagarin heard the engine's roar and felt the rocket slowly lift from the pad.

"Liftoff!" Gagarin heard from the control room. The rocket lifted slowly at first. Then it cleared the pad. The powerful engines roared on and the spacecraft was soon soaring into the sky.

"Off we go!" Gagarin said with excitement.

The rocket accelerated rapidly as it climbed



With a blaze of fire, Vostok 1 *takes off on its historic flight.*

through the sky. The engines continued their mighty thrust, winning their fight with the force of gravity. The acceleration pressed Gagarin deeper and deeper into his couch. The sensation felt like hundreds of pounds were pushing down on him. These are called G forces or G loads.

The spacecraft pushed on until the rocket's four strap-on boosters separated. Only the main booster was left to thrust him into orbit.

"The fairing has been discarded," Gagarin said. "I see the Earth. The loads are increasing. Feeling fine." The spacecraft rocketed onward until the main engine shut down. Normally when the acceleration stopped, he would be thrown forward against the straps. But this time was different.

This time Gagarin felt his body floating up off his seat. He was suspended in the air against his seat harness. Everything around him that was not fastened down began to float in the cabin.

He was in space! He and *Vostok 1* were in orbit around Earth.

Gagarin looked out his window for the first time. He became the first person to see with his own eyes the spherical shape of his own planet. Yuri Gagarin realized he was indeed the first human being in space.

2

Gagarin in Orbit

Radio broadcasts sent a wave of excitement through the city of Moscow.

"The Soviet Union has successfully launched a manned spaceship-satellite into an orbit around Earth. Present aboard the spaceship is the pilot-cosmonaut, Yuri Alexeivich Gagarin, an Air Force pilot, twenty-seven years of age!"

The launch was made at 9:07 A.M. Moscow time. The radio announcement sent the people of the city cheering into the streets.

A correspondent reported, "Crowds in Red Square and Sverdlov Square, groups marching up Gorky street . . . shoppers huddling in the stores—everyone is talking about Yuri Gagarin."

All of the Soviet Union gathered around their radios

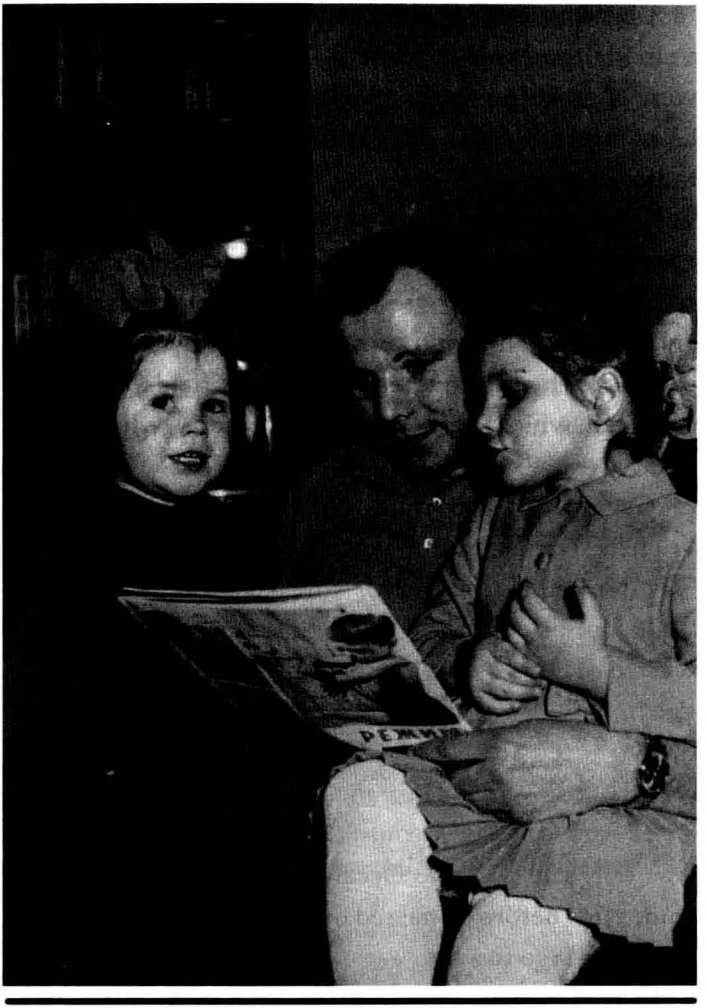
to listen to reports of Gagarin's flight. Gagarin's wife, Valya, had heard the news that her husband was in space. She too listened to the reports with both worry and excitement. Her apartment was soon full of neighbors. Gagarin's daughters, two-year-old Yelena, and two-month-old Galina, were near their mother as she recorded the events in a school notebook. She brushed tears from her face as she listened to the reports of her husband's voyage.

Gagarin was travelling faster than any human had flown before. He orbited at 17,400 miles per hour over Siberia and Japan. Gagarin grew used to the sensation of being weightless. At the same time he reported instrument readings and checked his equipment.

"Flight proceeds well," he said. "Instruments are functioning excellently . . . feeling fine . . . the machine is functioning normally."

Gagarin's spacecraft, the *Vostok*, was shaped like a sphere, with another cone-shaped module attached to the bottom. Gagarin sat in a special couch in the spherical part. The couch was designed to eject itself and Gagarin from the ship during the landing sequence. The spacecraft and Gagarin would then parachute to the ground separately.

The cone-shaped module contained the reentry engine. This engine would slow the spacecraft for its reentry into Earth's atmosphere. After the engine fired, it would drop away. Only the spherical part of the ship would reenter the atmosphere.



Yuri Gagarin reads to his two daughters, Galina (left) and Yelena (right). At the time of Gagarin's flight, his daughters were with their mother and friends at home.

Gagarin made his observations of the Earth through a circular porthole in front of him. These observations were of great interest to the Russian people. They were listening to official reports of his progress on Soviet radio.

"The sky looks very, very dark and the Earth is bluish," he said. Gagarin could easily see the shores of continents and islands. He could follow great rivers and distinguish mountains and hills. Over Russia he could see the big squares of the farm fields. He could even tell which fields were plowed and which were planted.

Gagarin observed that the sun appeared many times brighter when seen from space. The stars also appeared brighter and clearer. As his voyage continued, the sun began to set over the Earth's horizon behind him. He was entering the Earth's shadow, the night side of the Earth.

Gagarin watched the sun set over a bright blue band across the horizon. The band quickly turned to orange. Then, suddenly, it was dark. Nothing was visible. He was over the Atlantic Ocean at that moment. It was some time before he passed over land and made out the lights of large towns.

Vostok 1 flew on. Gagarin practiced eating and drinking in space. The weightlessness caused him no discomfort. To test his hand-eye coordination, he practiced handwriting. He had to hold the writing pad