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Project Mercury: Alan Shepard Becomes the First American in Space

STEVE EMBER: This is Steve Ember.

SHIRLEY GRIFFITH: And this is Shirley Griffith with the VOA Special English program EXPLORATIONS. Today we finish the story of the first American program to send a person into space. It was called Project Mercury.

(MUSIC)

STEVE EMBER: The American space agency opened for business October first, nineteen fifty-eight. NASA's most important job was to send an American into space and return him safely to Earth. Project Mercury was the plan for doing this. It would use one of several dependable military rockets to launch a small, one-man spacecraft. The space vehicle would return to Earth and land in the ocean.

Astronauts would be chosen for the program from the best military test pilots who had education in science or engineering.

The idea was simple. But making it happen was not a simple job. Thousands of scientists, engineers, technicians and other workers were needed. And money was needed -- thousands of millions of dollars.

SHIRLEY GRIFFITH: Congress approved the money. NASA organized the program. The McDonnell Company designed and built the spacecraft. The Army and Air Force built the Redstone, Jupiter and Atlas rockets. NASA announced the seven astronauts it had chosen on April ninth, nineteen fifty-nine. They immediately began training for space flight.

No time was wasted. The first test flights began later that year. Those test flights did not carry astronauts. Men would fly the Mercury spacecraft only after it was proved safe.

The final test flight was made at the end of January, nineteen sixty-one. A Mercury spacecraft carried a chimpanzee named Ham on a seven hundred kilometer flight over the Atlantic Ocean. There were some problems. But the animal survived the launch and the landing in the ocean.

STEVE EMBER: But before NASA could send an astronaut into space, cosmonaut Yuri Gagarin of the Soviet Union became the first person to travel in space. On April twelfth, nineteen-sixty one, he orbited the Earth one time in the Vostok One spacecraft. His space flight lasted one hour and forty-eight minutes.

A month later, on the morning of May fifth, American Navy pilot Alan Shepard crawled into his little Mercury spacecraft. There was almost no room to move inside it. One description said it was like sitting in the driver's seat of a small car, while wearing two heavy raincoats. Alan Shepard waited in the spacecraft for four hours. The weather caused part of the delay. Clouds would prevent filming of the launch. And some last-minute repairs were made to his radio system. Tired of waiting, he told the ground crew: "Why don't you fellows solve your little problems and light this candle."

SHIRLEY GRIFFITH: Finally, they did start the rocket. With a roar, it began to rise slowly from the launch pad. Its speed increased. Soon, it was out of sight.

Shepard's flight lasted only a few seconds longer than fifteen minutes. But he flew one hundred eighty-seven kilometers high, and four hundred eighty kilometers from the launch pad. He re-entered the atmosphere and slowed the Mercury spacecraft. The first flight ended with a soft splash into the ocean, as planned.

Shepard reported: "Everything is A-okay." Within minutes, a helicopter lifted him from the spacecraft and carried him to a waiting ship. The first manned flight of project Mercury was a complete success.

STEVE EMBER: Radio, television and newspaper reporters made it possible for millions of people to share the excitement of the flight. The United States had decided at the very beginning of its space program that all launches would be open to news reporters. Successes and failures would all be reported to the world. Television and news film showed flight preparations and launch. People could hear -- on radio and television -- the talk between the astronaut and the flight controllers.

(MUSIC)

SHIRLEY GRIFFITH: Ten weeks later, there was another Mercury launch. Astronaut Gus Grissom repeated Shepard's successful short flight. But there was a serious problem after the landing. Grissom almost drowned when the door of the spacecraft opened too soon.

The spacecraft filled with water and sank. Grissom escaped. He had to swim for a

few minutes before helicopters rescued him.

STEVE EMBER: The results of the two short flights made space officials believe the Mercury program was ready for its first orbital flight. Again, an animal would fly first.

A chimpanzee named Enos was launched on a three-orbit flight. The flight tested the worldwide communications system that linked the spacecraft to flight controllers at Cape Canaveral. It also tested the effect of weightlessness on living creatures.

A problem developed during the second orbit. One of the small thruster rockets that turned the spacecraft stopped working. Flight controllers decided to bring it down at the end of the second orbit. The landing was perfect. Enos suffered no bad effects.

SHIRLEY GRIFFITH: Now, everything was ready for an astronaut to make an orbital flight. NASA announced that the astronaut would be John Glenn. He would circle the Earth three times during a five-hour Mercury flight.

The launch was planned for January twenty-seventh, nineteen sixty-two. But it was postponed for almost a month because of weather and mechanical problems. Finally, on February twentieth, John Glenn climbed into his tiny spacecraft on top of the huge Atlas rocket.

After several short delays, the final seconds were counted off.

(SOUND)

STEVE EMBER: Five minutes later, the spacecraft separated from the Atlas rocket. John Glenn was in orbit – one hundred sixty kilometers above the Earth. His speed was twenty-eight thousand kilometers an hour. Glenn reported that all systems were "go." Everything was "A-OK" for an orbital flight.

Glenn's flight plan called for him to spend most of the first orbit getting used to the feeling of being weightless. After about an hour of being beyond the pull of Earth's gravity, Glenn reported he felt fine. He said being weightless was not a problem.

Glenn explained later that at times it helped to be free of gravity. He said he was busy taking pictures when he suddenly had to do something else. So he left the camera floating in the air. It stayed there, as if he had laid it on a table!

(MUSIC)

SHIRLEY GRIFFITH: Near the end of the first orbit, Glenn reported a problem. One of the small rockets of his automatic control system stopped working. This caused the spacecraft to turn to one side. Glenn solved the problem by turning off the automatic system. He took control of the system to correct the movement.

All of the systems on the Mercury spacecraft sent radio signals to flight controllers. The signals, or telemetry, reported on the condition of the systems.

During the second orbit, one of these signals warned that the heat shield might not be locked firmly to the bottom of the spacecraft. This could be a serious problem. The shield protected the spacecraft from burning up from the extreme heat of re-entering the Earth's atmosphere.

Engineers believed the warning signal was wrong and the shield was locked. But they told Glenn not to release rockets connected to the heat shield. The rockets, normally released before returning to Earth, could help keep a loose heat shield in place.

STEVE EMBER: Near the end of his third orbit, Glenn fired other rockets to slow his speed. The spacecraft began to return to Earth. As it re-entered the atmosphere, radio communications stopped. Flight controllers could no longer hear Glenn. Everyone was worried about the heat shield. The radio silence, caused by the heat of re-entry, lasted for seven minutes. Then the controllers heard the astronaut again.

Glenn reported that he was okay. The heat shield had been locked.

Parachutes lowered the Mercury spacecraft to the ocean surface. Glenn remained inside. A navy ship reached it in seventeen minutes, and lifted it aboard. Glenn opened the door and stepped out.

John Glenn got a hero's welcome when he returned to Cape Canaveral. President John Kennedy flew to Florida and presented a special award to the astronaut. Glenn became famous. He later was elected to the United States Senate from the state of Ohio. And in nineteen ninety-eight, at age seventy-seven, he returned to space in an historic flight.

SHIRLEY GRIFFITH: Three more flights were made in Mercury spacecraft. The last one, by astronaut Gordon Cooper, circled the Earth twenty-one times. It lasted thirty-four hours.

Cooper spent much of the time doing medical checks and taking pictures. His

work cleared the way for Project Gemini.

Gemini was the next step toward President Kennedy's goal of landing a man on the moon by the end of the nineteen sixties. Project Mercury astronauts made the goal seem possible.

(MUSIC)

STEVE EMBER: This Special English program was written by Marilyn Christiano and Frank Beardsley. This is Steve Ember.

SHIRLEY GRIFFITH: And this is Shirley Griffith. Listen again next week for another EXPLORATIONS on the Voice of America.