Introduction

Leroy Gordon Cooper Jr. was an American aerospace engineer, test pilot, United States Air Force Pilot, and the youngest of the seven original astronauts in Project Mercury, the first human space program of the United States. Gordon Cooper was born on March 6, 1927, in Shawnee, Oklahoma. He started learning how to fly as a young child; when he was 12, he unofficially soloed and earned his pilot certification at age 16.

Gordon Cooper was commissioned as a second lieutenant in the U.S Army in June 1949. He was able to transfer his commission to the United States Air Force in September 1949. After completing his flight training in 1950, he was posted to Landstuhl Air Base, West Germany, where he flew F-84 Thunderjets and F-86 Sabres for four years.

In January 1959, Gordon Cooper received unexpected orders to report to Washington D.C. On February 2nd, 1959, he attended a NASA briefing on Project Mercury and the part astronauts would take in it. Gordon Cooper went through the selection process with another 109 pilots, and was not surprised when he was accepted as the youngest of the first seven American astronauts.

About the project

This project that you’re seeing is a representation of Gordon Cooper’s most famous mission, the Mercury-Atlas 9 mission. It was the longest American spaceflight at that time. He orbited Earth 22 times within a 34 hour and 20 minute period. During this time, he completed 11 experiments and overcame hardware anomalies to manually bring his spacecraft back to Earth.

This successful mission gave NASA the confidence to proceed to Project Gemini, during which astronauts demonstrated the techniques required to meet the current president, John F. Kennedy’s goal to land a man on the moon and return him safely to Earth before the end of the decade.

On November 14th 1962, NASA announced that Cooper would fly the Mercury-Atlas 9 mission, with Alan B. Shepard, the first American in space, as his backup. The original plan called for an 18-orbit flight, but based on the success of Walter M. Schirra’s sigma 7 mission, NASA extended it to 22 orbits for a flight time of 34 hours, the longest American space mission to that time.

The extended mission allowed NASA to install several cameras in the spacecraft, including the first test of a slow-scan television system, for Gordon Cooper to document his flight. During a press conference on Feb. 8, 1963, he described his mission as “practically a flying camera.”

The launch was originally planned for mid-April 1963, but due to problems certifying the Atlas booster, it was pushed back to mid-May. The first launch attempt was on May 14th, with Gordon Cooper strapped in his seat for 6 hours, but it had to be scrapped due to spacecraft and ground tracking problems. On May 15th, he suited up again, took the transfer van to Launch Pad 14, and strapped himself in the capsule. Some minor technical problems briefly held up the countdown, but at 8:04 a.m. EDT, the ship was finally launched and set off to space.

The Atlas performed so well that Cooper’s orbit in Faith 7 nearly matched predicted values, prompting capsule communicator, the astronaut in MCC who talks directly with the astronaut in orbit, Schirra to tell Gordon Cooper that he was “smack-dab in the middle of the plot.” The first day in orbit went exceedingly smoothly, and he proceeded through his assigned tasks, such as photography of the Earth, and monitoring his spacecraft’s condition.

At 9 hours 13 minutes into the flight, Gordon Cooper exceeded Schirra’s time in space on Mercury 8, becoming the most-traveled American astronaut. He attempted to sleep, but the Earth passing by kept him more interested in staying awake and conducting observations. Other than the distractions, Cooper reported sleeping better in weightlessness than on the ground.

During his 17th orbit, Gordon Cooper transmitted slow-scan black and white television images back to the MCC, the first TV transmission from an American crewed spacecraft. The images, however, appeared of poor quality, likely due to the low light conditions in the spacecraft.

Faith 7 continued to perform well until the 19th orbit when a faulty signal erroneously indicated that the spacecraft had begun its reentry. Two orbits later, a short circuit knocked out the automatic stabilization and control system. When the carbon dioxide level began to rise in the cabin and in his spacesuit, he reported to MCC in his usual understated manner, saying: “Things are beginning to stack up a little.”

Gordon Cooper took over manual control of the spacecraft, orienting it for the critical firing of the retrorockets to take him out of orbit. He manually completed the retro-fire burn, and once the capsule completed the fiery reentry, he manually deployed first the drogue parachute at 50,000 feet to stabilize the spacecraft and then the main at 11,000 feet to slow his descent for splashdown. Finally, he deployed the landing bag below the spacecraft just prior to hitting the water.