The Mercury Program Essay, Research Paper

Project Mercury, the first manned U.S. space project, became an official NASA program

on October 7, 1958. The Mercury Program was given two main but broad objectives: 1. to

investigate man s ability to survive and perform in the space environment and 2. to develop basic

space technology and hardware for manned space flight programs to come.

NASA also had to find astronauts to fly the spacecraft. In 1959 NASA asked the U.S.

military for a list of their members who met certain qualifications. All applicants were required to

have had extensive jet aircraft flight experience and engineering training. The applicants could be

no more than five feet eleven inches tall, do to the limited amount of cabin space that the Mercury

modules provided. All who met these requirements were also required to undergo numerous

intense physical and psychological evaluations. Finally, out of a field of 500 people who met the

experience, training, and height requirements, NASA selected seven to become U.S. astronauts.

There names, Lieutenant M. Scott Carpenter; Air Force Captains L. Gordon Cooper, Jr., Virgil

Gus Grissom, and Donald K. Deke Slayton; Marine Lieutenant Colonel John H. Glenn, Jr.;

and Navy Lieutenant commanders Walter M. Schirra, Jr., and Alan B. Shepard, Jr. Of these, all

flew in Project Mercury except Deke Slayton who was grounded for medical reasons. He later

became an American crewmember of the Apollo-Soyuz Test Project.

The Mercury module was a bell shaped craft. Its base measured exactly 74.5 inches wide

and it was nine feet tall. For its boosters NASA chose two U.S. military rockets: the Army s

Redstone, which provided 78,000 pounds of thrust, was used for suborbital flights, and the Air

Force Atlas, providing 360,000 pounds of thrust, was used for orbital fights. The Mercury craft

was fastened to the top of the booster for launch. Upon reaching the limits of Earth s atmosphere

the boosters were released from the module, and fell into uninhabited ocean.

The first Mercury launch was performed on May 5, 1961. The ship, Freedom 7, was the

first U.S. craft used for manned space flight. Astronaut Alan Shepard, Jr. remained in suborbital

flight for 15 minutes and 22 seconds, with an accumulated distance of 116 miles.

The second and final suborbital mission of the Mercury Project was launched on July 21,

1961. Gus Grissom navigated his ship, Liberty Bell 7, through flight for just 15 seconds longer

than the previous mission.

The next Mercury flight was accomplished using an Atlas booster. On February 20,1962

it fired up and launched John Glenn, Jr., inside Friendship 7, into orbit. Glenn orbited Earth three

times and when he returned the country celebrated.

Just three months later on May 24 Scott Carpenter also orbited Earth three times in Aurora

7.

On October 3, 1962 Walter Schirra, Jr. entered Earth s orbit in his ship, Sigma 7. He

completed 6 orbits and then completed the first splashdown in the Atlantic Ocean. All previous

splashdowns and recoveries were performed in the Pacific.

The final Mercury mission was the longest. Launched into orbit on May 15, 1963, Faith 7,

with Gordon Cooper, Jr. inside, went around Earth 22 times in 34and a half hours. On May 16 it

too splashed down in the Atlantic Ocean where it was recovered, successfully ending the Mercury

Project.

The Mercury Project, five years and $392.6 million dollars after it began, came to a close.

The entire project was highly successful, achieving both of its goals. It paved the way for the next

generation of NASA spacecraft: Gemini.