

Stars of the show

McDonnell employees helped explain mission of *Friendship 7* as it orbited Earth in 1962

By Larry Merritt

n Feb. 20, 1962—45 years ago this month—the eyes of the world were on John Glenn and his *Friendship 7* Mercury spacecraft as he became the first American to orbit the earth.

Glenn circled the globe three times, traveling 75,679 miles (121,794 kilometers) in four hours, 55 minutes and 23 seconds, before making a successful splashdown in the Atlantic Ocean some 800 miles (1,300 km) southeast of Bermuda.

Nobody was more excited about the flight than the men and women of the McDonnell Aircraft Corporation, now part of Boeing. They participated in an unprecedented live broadcast—and helped to give the U.S. space program a badly needed boost.

After two spectacular orbital flights by Russian cosmonauts in 1961, Glenn's flight put the United States back in the space race and restored NASA morale. Not only was it a technological triumph, but millions of people were able to share in the adventure. The flight of *Friendship 7* was one of the first events to be televised live and uninterrupted. The coverage of the flight reached an estimated audience of more than 100 million in the United States and Canada.

A key part of the telecast involved live "remotes" originating from the McDonnell plant near St. Louis. The company designed and built Glenn's spacecraft, along with 19 others used in all the manned and unmanned phases of Project Mercury.

Television network correspondents interviewed engineers and factory workers about the features and operation of the spacecraft.

Launch of *Friendship 7* came at 9:47 a.m. on Feb. 20, 1962, from Pad 14 at Cape Canaveral, Fla. John Glenn later said that the liftoff felt slow and ponderous, "like an elephant trying to become a ballerina."

For the McDonnell people, the flight represented a triumph. It had been only 37 months from contract award to this point, a technological effort of a magnitude not seen in the American aviation industry since the end of World War II in 1945.

The McDonnell team had worked long hours under great pressure to solve all the new problems involved in launching a person into space and returning safely. The team had devised new manufacturing techniques needed to construct a spacecraft capable of withstanding the fiery reentry through the atmosphere. The two suborbital Mercury flights of astronauts Alan Shepard and Gus Grissom in 1961 were now seen as merely rehearsals. The real drama was getting into and out of orbit. With the launch of *Friendship 7*, the original goal of Project Mercury had been attained.

Viewers watched as workers cheered "go, go, go!" when Glenn's spacecraft lifted off the launch pad. What the McDonnell people knew that the viewers didn't was that Glenn's spacecraft was number 13 off the production line. If they were superstitious, they didn't reveal it to the TV audience. They were anxious but confident.

At key points during the flight, viewers were taken inside the Project Mercury mock-up room. There a full-size model of Glenn's spacecraft, including a complete instrument panel, was used to help the audience understand what was happening during the mission.

The telecasts themselves involved some new technology. Most TV cameras at the time where large and cumbersome, mounted on a tripod dolly that literally weighed a ton. The CBS-TV crew used an experimental miniature camera called "PortaPak," developed by Sony. The Japanese company sent three of its top engineers halfway around the world to ensure there were no problems with the new equipment. Microwave relay antennas were used to reflect the signals from the McDonnell plant near the airport some 13 miles (21 km) to a network relay point in downtown St. Louis.

All across North America, from the time Glenn rode the elevator to the top of the 10-story launch gantry until his splashdown and recovery, people watched the drama unfold. In New York City, a crowd

John Glenn and the *Friendship 7* spacecraft are shown before his historic threeorbit flight, which took place 45 years ago this month. All Mercury spacecraft carried the number 7 in honor of the seven original astronauts. Glenn's children suggested this spacecraft bear the name "Friendship."

of more than 9,000 gathered in front of a huge television screen set up in the Grand Central Station railroad terminal. In Grand Rapids, Iowa, a judge halted the trial of a suspect charged with receiving a stolen television and had the main piece of evidence plugged in so everyone in the courtroom could watch the historic event.

Because millions were allowed to share in it, the flight of *Friendship 7* proved to be one of the great moments of history.

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