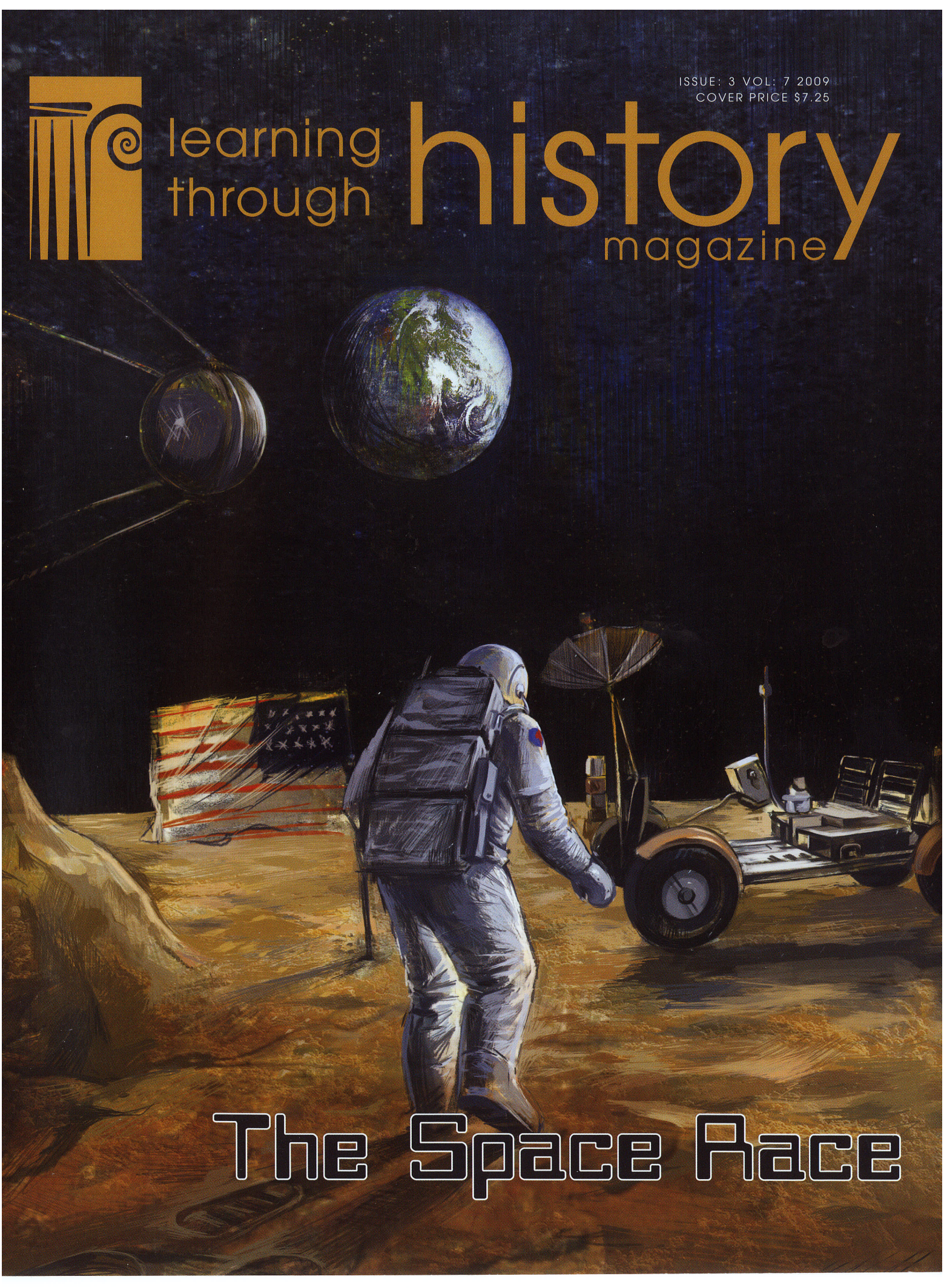
ISSUE: 3 VOL: 7 2009
COVER PRICE $7.25

learning through history magazine



The Space Race

Written by Barbara Diggs

The Mercury 13

Women of the Space Race

Seven Members of the First Lady Astronaut Trainees in 1995

Alan Shepard. John Glenn. Neil Armstrong. Buzz Aldrin. When reading the names of the American astronauts of the space race, one can't help but notice there are no women on the list. In fact, when reviewing the names of *any* astronaut from that period, only a single female name turns up: Valentina Tereshkova, a 26-year-old Russian who became the first woman in space in 1963. No American woman would travel to space until astronaut Sally Ride did so in 1983. One wonders: why weren't any American women involved in the race to outer space?

In truth – there were. In 1960, twenty-five talented women aviators were selected to endure the same exhausting astronaut fitness examinations as NASA's male astronauts to assess their suitability for space travel. Of the twenty, thirteen women passed the examinations. But just as they were proceeding to the next step in testing, the exam was canceled. The government simply would not support the idea of sending women into space. Today, this courageous group of women is known as the Mercury 13. Although none of them ever made it into space, their story deserves to be remembered.

Women in Space?

In the late 1950s, as the National Aeronautics and Space Administration (NASA) scrambled to find the best men to send to space, only two people in the administration seriously considered the prospect that women might be equally well suited for space travel. These were

Dr. William Randolph Lovelace, chair of NASA's Special Committee on Life Sciences, and Air Force Brigadier General Donald Flickinger, also on the Special Committee. Both men were uniquely suited to determine the type of person most fit for space travel: they had primary responsibility for developing the fitness tests given to the Project Mercury astronauts, America's first astronaut team.

After observing the male candidates' performance on the fitness tests, Lovelace and Flickinger became interested in how women would perform on identical tests. They believed that women might make good astronauts although NASA thought women wouldn't be able to handle the physical demands of space travel. Lovelace and Flickinger decided to conduct their own study. They began searching for the best female pilot they could find to test and decided upon Geraldyn "Jerrie" Cobb, a cracker-jack aviator who had won

Jerrie Cobb Poses Next to a Mercury Spaceship Capsule

Discussion or Essay Questions

During the Space Race, the United States and the Soviet Union were constantly in competition to be the first in all aspects of space exploration. And yet the United States allowed the U.S.S.R. to be the first to send a woman into space. Do you think the United States should have considered it important to launch the first woman into space? Why or why not? What message would it have sent to the world if it had been the United States that sent the first woman into space? List three positives and three negatives that could have come from it.

In 1962, the idea of women traveling to outer space was considered "not part of the social order." What do you think that means? Why do you think some people felt that way? What do you think changed between 1962 and 1983 that made it acceptable for women to become astronauts?

John Glenn, the first man to orbit the earth, traveled to space again in 1998 at the age of 77. Jerrie Cobb is now 78 years old and still yearns to travel to space. Do you think she or other members of the Mercury 13 should be allowed to go? Why or why not? Pretend you are Jerrie Cobb and write a three-paragraph letter to NASA explaining why you should be permitted to travel to space.

♦♦♦♦♦♦♦♦♦

numerous national and international awards for her flying and had set world aviation records for speed, distance, and altitude.

Jerrie Cobb was thrilled with the possibility, however remote, of becoming an astronaut. She quickly agreed to undergo the fitness examinations at Lovelace's private clinic in Albuquerque, N.Mex. In February 1960, Cobb submitted to the seventy-five grueling tests that the male astronauts had undergone. Among other things, she swallowed a three-foot rubber hose so doctors could examine her stomach acids, had an electrode implanted in her hand to test nerve reflexes, and had ice water injected into her ears so doctors could time how rapidly she recovered from the vertigo it caused.

The tests were difficult for Cobb, physically and psychologically. The future of women astronauts seemed to rest on her shoulders. If she passed the tests, NASA might reconsider their stance on women's abilities to withstand space travel. But if she failed, NASA's beliefs would be confirmed and women would continue to be barred from the space program.

Cobb needn't have worried – she passed the tests with flying colors. Her performance was equal to the male astronauts, and she even outperformed them in some cases. Lovelace announced the results at a conference and soon Cobb's face was in newspapers all over the world.

The Women-in-Space Program

Lovelace knew NASA wouldn't reconsider having female astronauts based on one woman's results – he needed more evidence. After Jacqueline Cochran, a world-famous pilot, agreed to finance further study, Lovelace and Cobb identified twenty-five qualified aviatrixes to undergo the tests. Nineteen agreed to participate.

Testing began for the Women-in-Space program in late 1960 and continued for several months. When the examinations were finished, twelve women had passed, all performing as well as the men. Lovelace was elated. He asked the women to continue to the next phase of testing, which would include spaceflight simulation tests and, possibly, piloting jets. All the candidates jubilantly agreed to continue. But there was a problem: Lovelace didn't know where the next phase of testing could take place. The Project Mercury men had tested at an Air Force base, but the Air Force had made clear it wasn't interested in testing women astronaut candidates.

While Lovelace was sorting out this dilemma, Jerrie Cobb arranged for the candidates to participate in another phase of testing, which involved being submerged in an isolation tank. The test determined how a person could withstand the isolation of space: in the tank, there was nothing to see, hear, smell, feel, or taste. Only three women, Jerrie Cobb, Wally Funk, and Rhea Hurrle, were able to take the test. All three women broke the previous records for remaining in isolation, with Wally Funk remaining in the tank longest at 10 1/2 hours.

In May 1961, Lovelace found a place to conduct the spaceflight simulation tests: the U.S. School of Naval Aviation in Pensacola, Fla. The Navy agreed that if Jerrie Cobb took the tests and passed, the other women could be tested also. Cobb went to Pensacola and promptly passed all the tests. Lovelace told the other candidates to prepare for testing in Pensacola on September 18. Determined not to miss the testing, they rearranged their lives to be in Pensacola on the scheduled date – two women even quit their jobs to attend.

But it wasn't meant to be. On Sept. 12, 1961, mere days before the testing date, each candidate received a telegram from Lovelace informing them the tests had been canceled. The Navy had informed Lovelace that NASA had no interest in the conducting the tests and the Navy couldn't allow the tests to be performed without NASA's consent.

The candidates were angry and disappointed. But some were determined to fight.

Congressional Hearings

After learning of the test's cancellation, Jerrie Cobb went to Washington, D.C., to push for the continuation of testing. She was supported by Janey Hart, another Mercury 13 member and wife to Senator Phillip Hart. Janey Hart used her political savvy to convince the House Committee of Science and Astronautics to hold a hearing to determine whether the government was discriminating against women in the space program.

In July 1962, both Cobb and Hart testified. They argued that the testing had been canceled only because they were women, which was unfairly discriminatory. They pointed out that women performed as well as men on the fitness exams and were physically better suited for space travel as they weighed less, ate less, and consumed less oxygen than men, thus requiring less booster power to send them into space. Women, they argued, could make great contributions to the space race, if given a chance.

But astronauts John Glenn and Scott Carpenter also testified. They argued that women couldn't qualify to be astronaut candidates even if testing continued. NASA required all astronauts to be jet test pilots and, at the time, no women were allowed to be test pilots. John Glenn also noted that not permitting women to be astronauts was part of the "social order."

The committee ultimately decided that NASA's practices were not discriminatory. They stated that, perhaps, sometime in the future, NASA would consider instituting a program to determine the advantages of having female astronauts.

Aftermath

The women of the Mercury 13 slowly returned to their regular lives. All continued to fly and some went on to have distinguished careers in aviation. But many still dreamt of space travel and were both delighted and wistful when Sally Ride became the first American woman in space.

In 1999, Eileen Collins became the first woman to pilot a space shuttle. At Collins's invitation, eight of the surviving members of Mercury 13 (including Jerrie Cobb, Jerri Truhill, Sarah Ratley and Wally Funk) attended her launch. Commander Collins met with the women before the launch and said, "How can I possibly thank you for what you've done for us?" The women of Mercury 13 were gratified. They knew Collins understood that without those first brave steps taken by the Mercury 13, Collins, or any other woman, might not have gotten the chance to fly beyond the stars.

About the author
Barbara Diggs is a freelance writer living in France. She graduated from Stanford Law School and practiced law in New York and Paris for several years before changing careers.

Want to Read More?

HIGH SCHOOL

The Mercury 13: The Untold Story of Thirteen American Women and the Dream of Space Flight by Martha Ackmann

Space for Women: A History of Women with the Right Stuff by Pamela Freni

Promised the Moon: The Untold Story of the First Women in the Space Race by Stephanie Nolen

Right Stuff, Wrong Sex: America's First Women in Space Program by Margaret A. Weitekamp

♦♦♦♦♦♦♦♦♦

Online Articles

Meet the Women of Mercury 13
http://www.cbsnews.com/stories/2007/05/12/evening-news/main2794909.shtml

Timeline of Women in Space
http://www.npr.org/templates/story/story.php?storyId=4770249

♦♦♦♦♦♦♦♦♦