

Vera Huckel

Born:

1908

Died:

March 24, 1999

Occupation(s):

Aerospace Engineer
Mathematician
NASA “Computer”

Short Biography:

Huckel was an American mathematician, aerospace engineer, and one of the first female “computers” at the National Advisory Committee for Aeronautics (NACA), now the National Aeronautics and Space Administration (NASA). She studied math at the University of Pennsylvania and graduated in 1929.

Huckel used her math skills to work on many problems related to theories and aerodynamics. She helped NACA begin the transition from hand calculations to computers. She wrote the program (also known as “code”) for NACA’s first electronic computer. Huckel retired from NASA in 1972 after working there for more than 33 years.



Photo Credit: NASA

Margaret Hamilton

Born:

August 17, 1936

Hometown:

Paoli, IN

Occupation:

High School Teacher
Software Engineer

Short Biography:

Hamilton studied mathematics and philosophy at Earlham College in Indiana. She briefly taught high school mathematics and French upon graduation.

Hamilton was one of the first computer software programmers. She worked at the Massachusetts Institute of Technology (MIT), where she started by developing software to help predict the weather. At the time, computer science and software engineering were not fields of study you could pursue. Mathematicians and others learned how to program computers on the job through trial and error.

Margaret was naturally good at computer programming. She later joined the MIT lab that NASA hired to write the software for navigation and lunar landing guidance. Her software helped us land on the Moon. Margaret coined the term “software engineer” to explain what she did.



Photo Credit: MIT Museum

Mary W. Jackson

Born:

April 9, 1921

Died:

February 11, 2005

Hometown:

Hampton, VA

Occupation(s):

Engineer
Mathematician

Short Biography:

After graduating with highest honors from high school, Jackson continued her education at Hampton Institute, earning her Bachelor of Science degrees in Mathematics and Physical Science.

Jackson had many jobs before she landed at NASA's Langley Memorial Aeronautical Laboratory in 1951. She was assigned to work in a group that only included African American women. Her talent was recognized, and she was encouraged to pursue more education. With her new degree, she became NASA's first Black female engineer. During her career, she provided data that was later essential to the early success of the U.S. space program. She worked as a NASA engineer for nearly 20 years and then moved into a human resources position in which she worked to hire and promote more women at NASA.



Photo Credit: NASA / Bob Nye

Katherine Johnson

Born:

August 26, 1918

Died:

February 24, 2020

Hometown:

White Sulphur Springs, WV

Occupation:

Mathematician

Short Biography:

Johnson was handpicked to be one of three Black students to integrate West Virginia's graduate schools. Born in White Sulphur Springs, West Virginia, in 1918, her intelligence allowed her to skip several grades in school. By 13, she was attending high school.

At 18, she enrolled in college. In 1937, she graduated with highest honors in 1937 and took a job teaching at a Black public school in Virginia.

Katherine is most famous for checking the accuracy of the computer code used to calculate the trajectory for the very first human spaceflight around Earth. Astronaut John Glenn, the man who made the first orbit around Earth, specifically asked her to do that math, because he trusted her more than the computers. She later calculated the trajectory for the first landing of humans on the Moon.



Photo Credit: NASA / Bob Nye