



Katherine Johnson

S.S. Katherine Johnson

NG-15 Cargo Delivery Mission to the International Space Station

Northrop Grumman is proud to name the NG-15 Cygnus spacecraft after former NASA mathematician Katherine Johnson. It is the company's tradition to name each Cygnus spacecraft after an individual who has played a pivotal role in human spaceflight. Johnson's hand-written calculations were critical for John Glenn's successful orbital mission around the Earth.

Johnson was born on August 26, 1918 in White Sulphur Springs, West Virginia. Her parents enrolled her in high school on the campus of West Virginia State College at the age of 10 because their home county did not offer public schooling for black students past eighth grade. Upon graduating from high school at the age of 14, Johnson enrolled at West Virginia State, where she took every math class offered by the school, causing professors to create additional courses just for her.

In 1937, Johnson completed degrees in mathematics and French at just 18 years old. She later became the first black woman to attend graduate school at West Virginia University, and was one of only three black students selected to integrate the program. Johnson ultimately decided to leave school to start a family. In 1953, Johnson joined the all-black West Area Computing group at the National Advisory Committee for Aeronautics (NACA) Langley laboratory. In 1957, Johnson joined NACA's Space Task Group—which became NASA later that year—and the team that took the first steps towards human space flight.

During her time in the Space Task Group, Johnson performed the trajectory analysis for Alan Shepard's May 1961 Freedom 7 mission—the country's first human spaceflight. She also co-authored a paper on orbital spaceflight and landing, becoming the first woman to receive credit as an author of a research paper at NASA. Johnson is most well-known for her work behind John Glenn's orbital mission around the Earth. Glenn specifically requested that Johnson run the computer's calculations by hand to proofread its work, saying "if she says they're good, then I'm ready to go."

Johnson went on to contribute valuable calculations for the Apollo 11 lunar landing, and authored or coauthored 26 papers during her time at NASA. In 1986, after working at Langley for 33 years, Johnson retired. In 2015, at age 97, Johnson was awarded the Presidential Medal of Freedom by President Barack Obama, the highest honor for U.S. citizens.

Johnson passed away on Feb. 24, 2020 at the age of 101. Her work at NASA quite literally launched Americans into space, and her legacy continues to inspire young black women every day. Northrop Grumman is proud to celebrate the life of Katherine Johnson and her endlessly perseverant spirit.