Katherine Johnson led an extraordinary life. Born in 1918 in White Sulpher Springs, West Virginia, she grew up grades ahead of her peers in school. She excelled in mathematics in college and graduated with the highest honors in 1937, then became one of three black students to integrate West Virginia’s graduate schools.

Katherine did trajectory analysis for Alan Shepard’s May 1961 mission Freedom 7, America’s first human spaceflight. In 1960, she made history as the first woman in the Flight Research Division that received credit as an author of a research report. The report, coauthored with Ted Skopinski laid out the equations describing an orbital spaceflight in which the landing position of the spacecraft is specified. In 1962, as NASA prepared for the orbital mission of John Glenn, Katherine was personally called upon by Glenn to ensure his safety by recalculating and rechecking flight trajectories that had already been programmed into the computer.