

32nd IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
50 years after Apollo 11: The future of space exploration and innovation (2)

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WOMEN IN EXPLORATION: LESSONS FROM THE PAST AS HUMANITY REACHES DEEP SPACE

Abstract

Since the 19th century, women have been making strides in advancing technology by performing essential work in areas like coding, computing, programming and space travel, despite the challenges they have faced. In 1962, Valentina Tereshkova became the first woman to travel into space. Sally Ride joined NASA in 1978 and five years later she became the first female American astronaut to fly in space. Tereshkova and Ride's accomplishments profoundly impacted space exploration and paved the way for the dozens of other women who became astronauts, and the hundreds of thousands more who pursued careers in science and technology. These advancements have greatly affected science, technology and space travel, but women in exploration still have a long way to go. Social constructs and gender expectations have often discouraged women from pursuing careers in science, technology, engineering and mathematics (STEM), and women who do pursue one of these paths are often faced with discrimination throughout their career. Research shows a huge disparity in the ratio of men to women pursuing careers in STEM, and this difference in gender participation is a global phenomenon. As we contemplate the next phase of human exploration—returning to the Moon and eventually traveling to Mars—our nation and the world must consider the possibilities, impacts and need for more women in aerospace and space exploration. While the challenges women must confront in the workforce have been studied and documented extensively, this paper will present a comprehensive snapshot of women in exploration, and discuss creative perspectives on empowering women and girls in STEM while increasing their involvement at every level of humanity's most ambitious endeavor yet - future missions to explore deep space.