

ASTRONAUT BIOGRAPHY



National Aeronautics and Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058

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Jessica Watkins

(Ph.D.) NASA Astronaut

Summary:

Jessica Watkins was selected by NASA to join the 2017 Astronaut Candidate Class. Watkins reported for duty in August 2017 and completed two years of training as an astronaut candidate. The Colorado native earned a Bachelor of Science in geological and environmental sciences from Stanford University, and a Doctorate in geology from the University of California, Los Angeles (UCLA). Dr. Watkins conducted her graduate research on the emplacement mechanisms of large landslides on Mars and Earth. She has worked at NASA's Ames Research Center and NASA's Jet Propulsion Laboratory, and was a science team collaborator for NASA's Mars Science Laboratory rover, Curiosity. Watkins served as a mission specialist on NASA's SpaceX Crew-4 mission to the International Space Station, which concluded on Oct. 14, 2022. It was the first spaceflight for Watkins, and the first flight of the Crew Dragon "Freedom" spacecraft. During the mission, she spent 170 days in space maintaining the space station and contributing to science experiments that not only might improve life on Earth, but also allow researchers to learn more about the effects of long duration spaceflight on the human body.

Personal Data:

Watkins was born in Gaithersburg, Maryland, but considers Lafayette, Colorado her hometown. Her parents, Michael and Carolyn Watkins, still live there. She enjoys rugby, basketball, soccer, skiing, coaching, movies, and writing.

Education:

Graduated from Fairview High School in Boulder, Colorado. Earned a Bachelor of Science in geological and environmental sciences from Stanford University in Stanford, California. Earned a Doctorate in geology from the University of California, Los Angeles.

Experience:

As a graduate research fellow at UCLA, Watkins studied Mars surface processes, focusing her Ph.D. research on the emplacement mechanisms of large landslides on Mars and Earth through orbital image and spectral data analysis, geologic mapping, and field work. While at UCLA, she was also a teaching assistant for various courses in earth and planetary science. At the time of her selection in June 2017, Watkins was a postdoctoral fellow in the Division of Geological and Planetary Sciences at the California Institute of Technology, where she collaborated as a member of the Science Team for the Mars Science Laboratory rover, Curiosity. Her work there included participation in daily planning of rover activities, testing of Mars rock physical properties using rover drill parameters, and multi-scale investigation of the geologic history of Gale Crater, Mars. While at Caltech, Dr. Watkins also served as a volunteer assistant coach for the Caltech Women's Basketball team.

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NASA Experience:

During undergraduate internships at NASA's Ames Research Center, Watkins conducted research on Mars soil simulant supporting the Phoenix Mars Lander mission. As a graduate student, Watkins participated in several internships at NASA's Jet Propulsion Laboratory, including analysis of near-earth asteroids discovered by the NEOWISE mission, tactical and strategic planning for the Curiosity mission, and system design testing for NASA's Perseverance rover and Mars Sample Return missions. In addition, she served as chief geologist for a NASA analog mission at the Mars Desert Research Station in 2009 and as a science operations team member for a NASA Desert Research and Technology Studies analog mission in 2011. Dr. Watkins also served as an aquanaut crew member in the Aquarius underwater habitat for the NASA Extreme Environment Mission Operations 23 mission in 2019.

Watkins reported for duty in August 2017 and completed two years of training as an astronaut candidate. Her astronaut candidate training included scientific and technical briefings, intensive instruction in International Space Station systems, spacewalks, robotics, physiological training, T-38 flight training, water and wilderness survival training, geology training, and expeditionary skills training.

Spaceflight Experience:

Watkins completed her first spaceflight as a mission specialist on NASA's SpaceX Crew-4 mission (April 27 – Oct. 14, 2022), having logged a total of 170 days in space over her two increments, Expedition 67 and 68. Over the course of 170 days in space during the mission, Watkins and her crewmates contributed to ongoing and new scientific investigations and technology demonstrations spanning several science disciplines. Watkins orbited the Earth 2,720 times, traveling a distance of 72,168,935 statute miles. This was the fourth commercial crew rotation mission and the first flight of the Crew Dragon "Freedom" spacecraft.

Awards/Honors:

Stanford Earth Early- to Mid- Career Alumni Award (2018); Caltech Division of Geological and Planetary Sciences Chair's Postdoctoral Fellowship (2015); California Alliance for Graduate Education and the Professoriate (AGEP) Postdoctoral Fellowship (2015); NASA Group Achievement Award, Mars Science Laboratory Prime Mission Science and Operations Team (2015); UCLA Department of Earth and Space Sciences Harold and Mayla Sullwold Scholarship for Academic Excellence and Outstanding Original Research (2012); National Science Foundation Graduate Research Fellowship in Geosciences (2012); UCLA Chancellor's Prize (2010); California Space Grant Consortium Fellowship (2010); Division I College Rugby National Champion, Stanford Women's Rugby (2008); USA Rugby Collegiate All-American (2008-2010); Women's Sevens Rugby World Cup Semi-finalist, USA Eagles (2009).