

# ASTRONAUT BIOGRAPHY



National Aeronautics and Space Administration

Lyndon B. Johnson Space Center  
Houston, Texas 77058

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## Zena Cardman

NASA Astronaut

### Summary:

Zena Cardman was selected by NASA as a member of the 2017 “Turtles” Astronaut Class. The Virginia native holds a Bachelor’s of Science in Biology and a Master’s of Science in Marine Sciences from the University of North Carolina, Chapel Hill. Her research focused primarily on geobiology and geochemical cycling in subsurface environments, from caves to deep sea sediments. Cardman’s experience includes multiple Antarctic expeditions.

### Personal Data:

Born in Urbana, Illinois, Cardman considers Williamsburg, Virginia, to be home. Her parents, Helen and Larry Cardman, still live in Williamsburg. Cardman enjoys rock climbing, poetry, and power lifting.

### Education:

Graduated from Bruton High School in Williamsburg, Virginia. Received a Bachelor’s of Science in Biology from the University of North Carolina at Chapel Hill. Earned a Master’s of Science in Marine Sciences from the University of North Carolina at Chapel Hill. PhD Candidate in Geosciences at time of selection.

### Experience:

At the University of North Carolina, Cardman studied microbial systems in hydrocarbon seeps, hydrothermal vents, and the Arctic. During that time, she also worked with the Palmer Long-Term Ecological Research group in Antarctica, analyzing ecosystem changes as part of a multi-decadal study. Cardman has experience with NASA-supported research in British Columbia, the Canadian high Arctic, Idaho, and Hawaii, helping to develop operational architectures for science-driven planetary EVA. She briefly worked for the Sea Education Association, sailing as Assistant Engineer. At the time of her selection in June 2017, Cardman was a National Science Foundation Graduate Research Fellow at the Pennsylvania State University, where she studied nitrogen- and sulfur-cycling in chemosynthetic biofilms.

### NASA Experience:

Cardman reported for duty in August 2017 and completed two years of training as an Astronaut Candidate. Prior to her career as an Astronaut, she worked with NASA-supported field tests, including Pavilion Lake and BASALT.

### Awards/Honors:

NSF Graduate Research Fellowship (2012-2017); Pennsylvania Space Grant Consortium Fellowships (2015-2016); Royster Society Distinguished Graduate Fellowship (2012-2014); Irene F. Lee Chancellor’s Award for Most Outstanding Senior Woman (2010); North Carolina Space Grant Fellowships (2008-2010, 2013-2014); Chancellor’s Carolina Scholarship (2006-2010).