One Year in Jezero Crater with the Mars 2020 Perseverance Rover

Dr. Katie Stack Morgan, Jet Propulsion Laboratory, Pasadena, CA

The Mars 2020 Perseverance rover, NASA's newest flagship mission to Mars, has been exploring the surface of Mars since it landed in February 2021. Perseverance is seeking signs of ancient life and is collecting Martian rock and soil samples for possible return to Earth by a future mission. Upon completing a ~90-day commissioning phase, which included the first successful powered flight on another planet by the Ingenuity helicopter, Perseverance embarked on an exploration and sampling campaign of the rocks and outcrops comprising the presentday floor of Jezero crater. This presentation by Dr. Morgan, the Mars 2020 Deputy Project Scientist, summarizes science mission results from Perseverance's first year on Mars, including the collection of the missions' first samples, and discusses what's next for the Perseverance rover.

Biography: Katie Stack Morgan is a research scientist at the Jet Propulsion Laboratory in Pasadena, CA, the Deputy Project Scientist of the Mars 2020 Perseverance rover, and a participating scientist on the Mars Science Laboratory Curiosity rover mission. Originally from Cheshire, Connecticut, she graduated with a B.A. in geology and astronomy from Williams College in 2008 and earned her M.Sc. and Ph.D. in geology from Caltech in 2011 and 2015, respectively. For her work on the Curiosity rover, she was named to the 2013 *Forbes* list of 30 under 30 and has earned several NASA Group Achievement Awards and a NASA Software of the Year award. Katie's research focuses on the Martian sedimentary rock record, using orbiter and rover image data to understand the evolution of ancient surface processes on Mars.