

ASTRONAUT BIOGRAPHY



National Aeronautics and Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058

May 2019



Mark T. Vande Hei

(Colonel, U.S. Army Retired) NASA Astronaut

Summary:

Mark T. Vande Hei was selected by NASA in 2009. Born in Virginia then raised in New Jersey and Minnesota, Vande Hei earned a Bachelor of Science in Physics from Saint John's University and a Master of Science in Applied Physics from Stanford University. He was commissioned in the U.S. Army through the ROTC program and served as a combat engineer. In 1999, he became an assistant professor of physics at the United States Military Academy in West Point. Vande Hei most recently served as Flight Engineer on the International Space Station for Expedition 53/54.

Personal Data:

Vande Hei and his wife, Julie, are the proud parents of two children. He enjoys exercise, backpacking, watersports and reading. His parents, Thomas and Mary Vande Hei, reside in Chanhassen, Minnesota.

Education:

Saint Joseph's High School, Metuchen, New Jersey; Benilde-Saint Margaret's High School, Saint Louis Park, Minnesota, 1985; Bachelor of Science in Physics, Saint John's University, Collegeville, Minnesota, 1989; Master of Science in Applied Physics, Stanford University, 1999.

Experience:

Vande Hei was commissioned through ROTC following graduation from Saint John's University in 1989. After graduating from the Army's Engineer Officer Basic Course and Ranger School, he reported to the 3rd Battalion, 325th Infantry Regiment (Airborne Battalion Combat Team), Caserma Ederle, Italy. His roles there included combat engineer platoon leader, heavy engineer platoon leader, cold-weather-training officer, and support platoon leader. As a combat engineer platoon leader, he served in Iraq during Operation Provide Comfort. In 1994, he reported to the 4th Infantry Division (Mechanized) at Fort Carson, Colorado. While there, Vande Hei served in the staff of the 299th and 4th Engineer Battalions, and then commanded C Company, 4th Engineer Battalion. After completing a Master of Science degree in 1999, he served as an assistant professor in the Department of Physics at the United States Military Academy, West Point, New York. In 2003, he reported to the Army's 1st Space Battalion at Peterson Air Force Base, Colorado. There, he served as an Army space support team leader, then as the battalion's operations officer. As an Army space support team leader, Vande Hei deployed to Iraq for 12 months in support of Operation Iraqi Freedom. Other military training Vande Hei completed includes the Army Air Assault Course, Parachutist Course, German Winter Operations Course, Engineer Officer Advanced Course, Battalion Maintenance Officers' Course, Command and General Staff College and the Space Operations Officer Qualification Course.

NASA Experience:

Vande Hei reported to the Johnson Space Center in July 2006 to serve as a Capsule Communicator (CAPCOM) in the Mission Control Center, Houston. He served as an International Space Station CAPCOM for Expeditions 15 to 20 and STS-122, 123, 124, 126 and 127. Vande Hei was selected in June 2009 as one of 9 members of the 20th NASA astronaut

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class. He completed astronaut candidate training in June 2011, after which he continued to serve as a CAPCOM. From June 2012 to May 2013, he served as the Astronaut Office's Director of Operations in Russia. He was a member of the Expedition 53/54 crew that launched to the International Space Station in September 2017. Later, he served as the technical assistant for NASA's Human Exploration and Operations Mission Directorate. Vande Hei is currently serving as the assistant to the chief astronaut for extravehicular activity and robotics.

Spaceflight Experience:

Expedition 53/54 (September 13 through February 28, 2018). The crew launched from the Baikonur Cosmodrome aboard the Soyuz spacecraft. Vande Hei, who served as Flight Engineer, was joined by Astronaut Joe Acaba and Russian Cosmonaut Alexander Misurkin of Roscosmos. During the mission the crew marked the beginning of the first long-term increase in crew size on the U.S. segment, enabling NASA to double the time dedicated to research and achieve a record-setting week of research that surpassed 100 hours. Highlights from this research include investigations into the manufacturing of fiber optic filaments in microgravity, improving the accuracy of an implantable glucose biosensor, and measuring the Sun's energy input to Earth. Vande Hei logged 168 days in space on this, his first, mission. He ventured outside the space station on four spacewalks to perform work that included replacing and lubricating the Latching End Effectors on both ends of the Canadarm2. Total duration of these four spacewalks was 26 hours and 42 minutes.

Awards/Honors:

Legion of Merit; Joint Service Commendation Medal; Joint Meritorious Unit Award; Southwest Asia Service Medal; various other campaign and service awards; NASA Achievement Medal; previous captain of the Saint John's Ranger Challenge Team; Doctor of Science, Honoris causa, Saint John's University.

Organizations:

Member of the Veterans of Foreign Wars of the United States, Member of Sigma Pi Sigma, the physics honor society.

Pronunciation:

MARK VAN-duh HI