



TERRY W. VIRTS, JR.

Terry W. Virts, Jr. was selected by NASA in 2000. The Maryland native graduated with Academic Distinction from the United States Air Force Academy in 1989 and has logged over 4,300 flight hours in more than 40 different aircraft. He served as the Endeavour pilot for STS-130 in 2010, and was assigned to Expedition 42/43, where he served as commander for Expedition 43 in 2015. Virts has conducted three spacewalks totaling more than 19 hours and has logged 212 days in space on his two flights. He is currently assigned to the Extravehicular Activity Robotics branch.

Pre-NASA Experience:

Virts attended the Ecole de l'Air (French Air Force Academy) in 1988 on an exchange program from the United States Air Force Academy. He received his commission as a Second Lieutenant upon graduation from the United States Air Force Academy in 1989. He earned his pilot wings from Williams Air Force Base, Arizona, in 1990. From there, Virts completed basic fighter and F-16 training and was assigned to Homestead Air Force Base, Florida, as an operational F-16 pilot in the 307th Tactical Fighter Squadron. After Hurricane Andrew struck Homestead in 1992, his squadron was moved to Moody Air Force Base, Georgia. From 1993 to 1994, he served in the 36th Fighter Squadron at Osan Air Base, Republic of Korea, where he flew low-altitude night attack missions in the F-16. Following his tour in Korea, he was reassigned to the 22nd Fighter Squadron at Spangdahlem Air Base, Germany, from 1995 to 1998. There, he flew the suppression of enemy air defenses missions, logging 45 combat missions in the F-16. Virts was a member of the United States Air Force Test Pilot School class 98B at Edwards Air Force Base, California. Following graduation, he was an Experimental Test Pilot at the F-16 Combined Test Force at Edwards from 1999 until his selection as a member of the 18th group of astronaut candidates in 2000. While at Edwards he served as the chief test pilot for the F-16 HARM Targeting System (HTS) as well as the Multi-Mission Computer (MMC) programs, the largest upgrade program in the 40-year history of the F-16.

He has logged over 5,300 flight hours in more than 40 different aircraft.

NASA Career:

Virts was selected as a Space Shuttle pilot by NASA in July 2000. His technical assignments have included lead astronaut for the T-38 program, Shuttle Avionics Integration Laboratory (SAIL) test crew member, Expedition 9 Crew Support astronaut and lead astronaut for appearances. He has worked as a Capsule Communicator (CAPCOM) from Expedition 8 to 19 as well as STS-115 to STS-126, communicating with station and shuttle crews from Mission Control in Houston. He also served as the lead Ascent and Entry CAPCOM, Chief of the Astronaut Office Robotics Branch and lead astronaut for the Space Launch System heavy lift booster. Virts retired from NASA August 2016.

Spaceflight Experience:

STS-130 (February 8 to February 21, 2010). Endeavour launched to the International Space Station with the final permanent modules: Tranquility and Cupola. Tranquility (or Node 3) is now the life-support hub of the space station, containing exercise, water recycling and environmental control systems, while the Cupola provides the largest set of windows ever flown in space. These seven windows, which



are arranged in a hemisphere, provide a spectacular and panoramic view of our planet and afford crews a direct view of station robotic operations. As pilot, Virts was responsible for assisting Commander George Zamka during launch, landing, rendezvous and orbital maneuvering. He was also the mission's lead robotic operator and was responsible for much of the internal outfitting of Tranquility and Cupola. During the 13-day, 18-hour mission, Endeavour traveled more than 5.7 million miles and completed 217 orbits of the Earth.

Expedition 42/43 (November 23, 2014 to June 11, 2015). Virts was assigned as commander for Expedition 43, and launched on a Russian Soyuz on November 23, 2014. His crew was onboard station to observe the first flight test of the new Orion spacecraft on Exploration Flight Test-1. They also greeted two SpaceX/Dragon cargo craft, one Progress resupply vehicle, saw the departure of the "Georges Lemaitre" Automated Transfer Vehicle (the final ESA ATV cargo vehicle), the departure of the Soyuz TMA-14M spacecraft and the 40S crew as well as being onboard for the arrival of the Soyuz TMA-16M spacecraft and the one-year crew. Virts conducted three spacewalks totaling 19 hours and 2 minutes, in part to rig cables required for future US crew vehicles, the Boeing CST-100 and SpaceX Dragon. Virts returned to Earth June 11, 2015 having logged more than 7 months in space during his two flights.

Awards/Honors:

Graduated with Academic Distinction from the United States Air Force Academy and Embry-Riddle Aeronautical University; Distinguished Graduate of Undergraduate Pilot Training at Williams Air Force Base, Arizona, and F-16 training at Macdill Air Force Base, Florida. Military decorations include the NASA Distinguished Service Medal, Space Flight Medal, and Exceptional Achievement Medal. Also Defense Meritorious Service Medal, Meritorious Service Medal, Air Medal, Aerial Achievement Medal, Air Force Commendation Medal, et al.

Post-NASA Career:

Terry's book, "View From Above," was published in October 2017 by National Geographic. It includes some of the best of his over 300,000 still images taken in space, in combination with stories from his space flights. Virts is also a speaker, and has given talks at Starmus, Harvard Business School, Goldman Sachs, British Airways, as well as various business conferences. He is also a featured speaker for the popular National Geographic "Natgeo Live" series. Terry also freelances as a photographer and cinematographer and as a certified drone pilot.