ASTRONAUT BIOGRAPHY

National Aeronautics and Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058

February 2025

Luke Delaney

(Major, USMC, Ret.) NASA Astronaut

Summary:
Luke Delaney was selected by NASA to join the 2021 Astronaut Candidate Class and reported for duty in January 2022. The Florida native holds degrees in mechanical and aerospace engineering. He is a distinguished naval aviator that participated in exercises throughout the Asia Pacific region and conducted combat missions in support of Operation Enduring Freedom. As a test pilot, he executed numerous flights evaluating weapon system integrations, and served as a test pilot instructor. At the time of his selection as an Astronaut Candidate, Delaney worked as a Research Pilot at NASA's Langley Research Center where he supported airborne science missions

Personal Data:
Born in Miami, Florida, Delaney considers Debary, Florida to be his hometown. He is married to Tracy Delaney and they have two daughters. His parents are Robert and Stephanie Delaney of central Florida.

Education:
Graduated Deltona High School in 1997. Earned a bachelor's degree in Mechanical Engineering from University of North Florida (UNF) in 2006 and a master's degree in Aerospace Engineering from the Naval Postgraduate School in 2016. Completed United States Naval Test Pilot School (USNTPS) in 2014.

Experience:
Delaney enlisted in the Marine Corps in 1998, completing Naval Aircrew Candidate School where he was selected to be a KC-130 Navigator. He attended Marine Aerial Navigator School at Randolph Air Force Base in Texas, and later transitioned to Marine Aerial Refueler Transport Squadron THREE FIVE TWO (VMGR-352) at Marine Corps Air Station Miramar, California. In December 2001, Delaney deployed to Afghanistan attached to Task Force 58 (TF-58) in support of Operation Enduring Freedom where he was selected for the Marine Corps Enlisted Commissioning Education Program. Following his undergraduate education in engineering, he reported to The Basic School (TBS) at Marine Corps Base (MCB) in Quantico, Virginia. After TBS he commenced primary flight training at Naval Air Station Pensacola, followed by advanced flight training at Naval Air Station Corpus Christi. Earning his Naval Aviator wings in 2008, he received follow-on orders to VMGR-152 in Okinawa. During his time in Japan, Delaney participated in multiple international training and coalition exercises in addition to detached operations in the Philippines, Thailand, Cambodia, Australia, Guam, Hawaii, and Alaska. In November 2010, he deployed to Afghanistan a second time for Operation Enduring Freedom.

Delaney returned to MCB Quantico where he graduated Expeditionary Warfare School in May 2013. While there he was selected for USNTPS, graduating Class 146 to become a Flight Test Pilot and Project Officer at Air Test and Evaluation Squadron TWO ZERO (VX-20). There he also served as Platform Coordinator overseeing substantial aircraft modifications and managing numerous developmental projects. He executed a variety of test flights to include KC-130J Large Aircraft Infrared Countermeasures (LAIRCM) and Harvest High Altitude Weapons Kit (HAWK) Upgrade. In 2018, Delaney returned to USNTPS to become a test pilot instructor. He managed academic and flight syllabi for fixed-wing handling qualities, qualitative evaluations, and airplane performance. Instructing in the T-6B, C-12C, U-6A, and NU-1B, he conducted a variety of flight exercises, demonstrations, and evaluations. Retiring from the Marine Corps in 2020, he transitioned to NASA

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Langley as a Research Pilot and aerospace engineer.

Delaney executed over 400 combat sorties accruing more than 550 combat flight hours. Including his NASA career, he has more than 3,900 flight hours on 48 models of jet, prop, and rotary wing aircraft.

NASA Experience:
As a NASA Langley Research Pilot, Delaney supported airborne science missions. He managed numerous projects involving significant platform modifications to incorporate research instrumentation, reviewing engineering assessments and evaluating aircraft airworthiness for safe operation. Delaney executed dozens of flights for atmospheric data collection, air traffic management concepts, and other earth science efforts. His projects included Aerosol Cloud Meteorology Interactions Over the western Atlantic Experiment (ACTIVATE), Sub-Mesoscale Ocean Dynamics Experiment (S-MODE), Compact Midwave Imaging System (CMIS), and Scalable Traffic Management for Emergency Response Operations (STEReO).

Delaney reported for duty in January 2022 to complete two years of training as an Astronaut Candidate.

Awards/Honors:
Two NASA Group Achievement Awards; Graduated with Honors (Top 10%), The Basic School, Marine Officer Training; Commodore's List with Distinction, Navy Flight Training; Meritorious Service Medal; Air Medal (7th Award); Navy and Marine Corps Commendation Medal; Navy and Marine Corps Achievement Medal (3rd Award); Afghanistan Campaign Medal; Global War on Terrorism Expeditionary Medal; Humanitarian Service Medal; NATO Medal – ISAF (Afghanistan), and various other military service awards.

Organizations:
Society of Experimental Test Pilots (SETP); United States Naval Test Pilot School Alumni Association; Federal Aviation Administration-certified flight and instrument instructor for single and multi-engine airplanes.