Franklin R. Chang-Díaz, PhD

Dr. Franklin R. Chang-Diaz holds a space record for flying on seven space shuttle missions, and has logged over 1,601 hours in space, including 19 hours and 31 minutes in three spacewalks. In total he served for 25 years as a NASA astronaut.

Dr. Chang-Diaz is also the inventor of the Variable Specific Impulse Magnetoplasma Rocket (VASIMR) plasma rocket engine, which promises to greatly reduce interplanetary travel times, as well as other advanced propulsion technologies.

Following his graduation from the University of Connecticut in 1973, he entered graduate school at MIT, becoming heavily involved in the United States' controlled fusion program and doing intensive research in the design and operation of fusion reactors.

He obtained his doctorate in the field of applied plasma physics and fusion technology and, in that same year, joined the technical staff of the Charles Stark Draper Laboratory. His work at Draper was geared strongly toward the design and integration of control systems for fusion reactor concepts and experimental devices, in both inertial and magnetic confinement fusion.

As a visiting scientist with the M.I.T. Plasma Fusion Center from October 1983 to December 1993, he led the plasma propulsion program there to develop this technology for future human missions to Mars. From December 1993 to July 2005 Dr. Chang-Dìaz served as Director of the Advanced Space Propulsion Laboratory at the Johnson Space Center where he continued his research on plasma rockets. He is an Adjunct Professor of Physics at Rice University and the University of Houston and has presented numerous papers at technical conferences and in scientific journals.

Dr. Chang-Diaz is also President and CEO of Ad Astra Rocket Company, with facilities in Houston and Liberia, Costa Rica.

He has received numerous special honors, including the Liberty Medal from President Ronald Reagan at the Statue of Liberty Centennial Celebration in New York City in 1986, 2 NASA Distinguished Service Medals and 3 NASA Exceptional Service Medals.