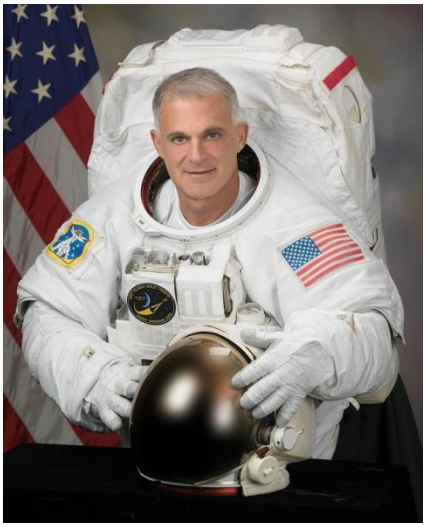
Biographical Data

Lyndon B. Johnson Space Center
Houston, Texas 77058

DAVID A. WOLF (MD, EE)
NASA ASTRONAUT (FORMER)



PERSONAL DATA: Born August 23, 1956, in Indianapolis, Indiana. Now living in Houston, TX, his lifelong hobbies include photography, competition aerobatic flying, handball, and slalom course water skiing. Multiple generations of family make Indianapolis their home including opening the first automobile dealer in Indiana in 1903.

EDUCATION: Graduate of North Central High School, Indianapolis, Indiana, in 1974; he earned his Bachelor of Science degree in Electrical Engineering from Purdue University in 1978, and a Doctor of Medicine degree from Indiana University in 1982. His medical internship was completed at Methodist Hospital in Indianapolis and United States Air Force flight surgeon training at Brooks Air Force Base in San Antonio, Texas. Dr. Wolf has completed both U.S. astronaut and Russian cosmonaut training conducted in the Russian language in Star City, Russia.

SPECIAL HONORS: NASA Exceptional Engineering Achievement Medal (1990) and NASA Inventor of the Year (1992). Dr. Wolf graduated "with distinction" from the "honors advanced curriculum" with a 4.0 in Electrical Engineering from Purdue. He received an Academic Achievement Award upon graduation from medical school for advancing the art of ultrasonic imaging by implementing digital signal processing methods found in military radar. He is honored by Purdue as a "Distinguished Engineering Alumnus." He received the Carl R. Ruddell scholarship for research in medical ultrasonic digital signal and image processing and is considered a pioneer in medical ultrasonic digital imaging leading to his first job at NASA in 1983 where he built the first ultrasonic imaging system to operate in Space. Dr. Wolf has received 18 U.S. patents, authored the authoritative book on three-dimensional tissue engineering methods based on his team's work a NASA where he became Chief of the Cell Biology Research Program at Johnson Space Center. David is one of the very few individuals to be inducted into the "Space Technology Hall of Fame," has published more than 40 technical publications and papers largely focused on enhanced regenerative tissue engineering. He received the Texas State Bar Patent of the Year in 1994. Dr. Wolf is the recipient of two honorary Doctorates from Indiana and Purdue University where he remains on faculty to this day as a professor of aeronautical and aerospace engineering. He has earned four spaceflight medals for four separate missions to space, spanning 168 days, seven spacewalks, and six separate spacecraft. He was appointed two terms on the User Advisory Group of the National Space Council working directly advising the U.S. Federal Cabinet Secretaries as leader of the Space Policy and International Engagement committee.

EXPERIENCE: As a research scientist at the Indianapolis Center for Advanced Research from 1980 to 1983, Dr. Wolf became established as a pioneer in the development of modern medical ultrasonic image processing, data acquisition, and tissue characterization techniques forming the basis of modern medical ultrasonic imaging. His love of photography grew into a love for medical image formation as he applied high time-bandwidth product pulse compression methods to digital RF pulse echo ultrasonics achieving state of the art signal to noise ratio, image clarity, and parameter extraction sensitive to pathology of the tissue under study. While at Purdue he developed enhanced doppler demodulation anti-aliasing techniques improving the range-velocity product limitations inherent to blood flow measurements. He served as a USAF senior flight surgeon in the Air National Guard (1983 to 2004) achieving the rank of Lt. Colonel. He has logged more than 2,500 hours of flight time, including as a combat mission ready weapons systems officer and radar operator in the F4-C, D, and E Phantom jet fighter. He has extensive experience in the T-38 Talon and regularly flew national competition aerobatics in his Christen Eagle aerobatic biplane. Dr. Wolf served as Chief Engineer for design of the telemedicine facility now operational on the International Space Station (ISS), being one of the few people to work as a spacecraft instrument designer and then to utilize these, for research and operational medicine in Earth orbit. As mission Astronaut responsible for the U.S. Spacelab on STS-58 Dr. Wolf assured that the research targets for an international group of over 25 principal investigators were achieved. He has particular expertise in spacecraft avionics, life support, rendezvous navigation, and extravehicular activity (EVA). He led the Astronaut Office EVA branch for eight years during the core construction of the ISS responsible for crew training and evaluation for critical EVA assignments. He has conducted spacewalks in both the U.S. (EMU) and Russian (ORLAN) suits and recovering from near catastrophic on-orbit emergencies including airlock failure to repressurize upon ingress, total vehicle power failures, and navigational computer failures – completely in the Russian language. Dr. Wolf is known for his life-long passion for "Space" and how to utilize those microgravity conditions to improve life on our planet. Dr. Wolf places high priority on sharing his breadth of experience to energize our youth, workforce, and public as a speaker, educator, and consultant.