Biographical Data



Lyndon B. Johnson Space Center Houston, Texas 77058

National Aeronautics and Space Administration

VANCE DEVOE BRAND (MR.) NASA ASTRONAUT (FORMER)

PERSONAL DATA: Born in Longmont, Colorado, May 9, 1931. Married to the former Beverly Ann Whitnel. Two daughters and four sons. Enjoys running to stay in condition, hiking, skiing, and camping.

EDUCATION: Graduated from Longmont High School, Longmont, Colorado; received a bachelor of science degree in Business from the University of Colorado in 1953, a bachelor of science degree in Aeronautical Engineering from there in 1960, and a master's degree in Business Administration from the UCLA in 1964.

ORGANIZATIONS: Fellow, American Institute of Aeronautics and Astronautics, Society of Experimental Test Pilots, and American Astronautical Society. Registered Professional Engineer in Texas. Member, Sigma Nu.



SPECIAL HONORS: JSC Certificate of Commendation (1970); NASA Distinguished

Service Medals (1975 & 1992); NASA Exceptional Service Medals (1974 & 1988); Zeta Beta Tau's Richard Gottheil Medal (1975); Wright Brothers International Manned Space Flight Award (1975); VFW National Space Award (1976 & 1984); Sigma Nu Distinguished Alumnus of the Year Award (1976); Federation Aeronautique Internationale (FAI) Yuri Gagarin Gold Medal (1976); University of Colorado Alumnus of the Century (1 of 12) (1976); AIAA Special Presidential Citation (1977); American Astronautical Society's Flight Achievement Award for 1976 (1977); AIAA Haley Astronautics Award (1978); JSC Special Achievement Award (1978); Harmon Trophy (Astronaut) (1993); FAI De La Vaulx Medal (1983); NASA Space Flight Medals (1983, 1984, 1992); Distinguished Visiting Lecturer at University of Colorado (1984); De Molay Hall of Honor (1989); FAI Komarov Awards (1983 & 1991); University of Colorado George Norlin Award (1991); De Molay Legion of Honor (1993). International Space Hall of Fame (1996), U.S. Astronaut Hall of Fame (1997). Meritorious Executive, U.S. Senior Executive Service (1997); Honorary Doctor of Science Degree from University of Colorado (2000); International Aerospace Hall of Fame (2001); Oklahoma Aviation and Space Hall of Fame (2005); Russian Republic Tsiolkovski Award (2005) and ASE Crystal Helmet Award (2005).

EXPERIENCE: <u>Military</u>. Commissioned officer and naval aviator with the U.S. Marine Corps from 1953 to 1957. Military assignments included a 15-month tour in Japan as a jet fighter pilot. Following release from active duty, Brand continued in Marine Corps Reserve and Air National Guard jet fighter squadrons until 1964.

Pre-NASA Civilian: Employed as a civilian by the Lockheed Aircraft Corporation from 1960 to 1966, he worked initially as a flight test engineer on the Navy's P3A aircraft. In 1963, Brand graduated from the U.S. Naval Test Pilot School and was assigned to Palmdale, California as an experimental test pilot on Canadian and German F-104 programs. Just prior to selection to the astronaut program, Brand worked at the West German F-104G Flight Test Center at Istres, France as an experimental test pilot and leader of a Lockheed flight test advisory group.

<u>Flight Experience</u>: 9,669 flying hours, which includes 8,089 hours in jets, 391 hours in helicopters, 746 hours in spacecraft, and checkout in more than 30 types of military aircraft.

NASA EXPERIENCE: One of the 19 pilot astronauts selected by NASA in April 1966, Brand initially was a crew member in the thermal vacuum chamber testing of the prototype Command Module and support crewman on Apollo 8 and 13. Later he was backup command module pilot for Apollo 15 and backup commander for Skylabs 3 and 4. As an astronaut he held management positions relating to spacecraft development, acquisition, flight safety and mission operations. Brand flew on four space missions; Apollo-Soyuz, STS-5, STS 41-B, and STS-35. He has logged 746 hours in space and has commanded three Shuttle missions. Mr. Brand departed the Astronaut Office in 1992 to become Chief of Plans at the National Aerospace Plane (NASP) Joint Program Office at Wright-Patterson Air Force Base, Dayton, Ohio. In September 1994, he moved to California to become Assistant Chief of Flight Operations at the Dryden Flight Research Center, then Acting Chief Engineer, Deputy Director for Aerospace Projects and finally Acting Associate Center Director for Programs. Mr. Brand retired from NASA in January 2008.

SPACE FLIGHT EXPERIENCE: <u>Apollo Soyuz</u>: Brand was launched on his first space flight on July 15, 1975, as Apollo command module pilot on the Apollo-Soyuz Test Project (ASTP) mission. This flight resulted in the historic meeting in space between American astronauts and Soviet cosmonauts. Other crewmen on this 9-day Earth-orbital mission were Thomas Stafford, Apollo commander, Donald Slayton, Apollo docking module pilot, cosmonaut Alexey Leonov, Soyuz commander; and cosmonaut Valeriy Kubasov, Soyuz flight engineer. The Soyuz spacecraft was launched at Baikonur in Central Asia, and the Apollo was launched 7 1/2 hours later at the Kennedy Space Center. Two days later Apollo accomplished a successful rendezvous and docking with Soyuz. The linkup tested a unique, new docking system and demonstrated international cooperation in space. There were 44 hours of docked joint activities which included 4 crew transfers between the Apollo and the Soyuz. Six records for docked and group flight were set on the mission and are recognized by the Federation Aeronautique Internationale. Apollo splashed down in the Pacific Ocean near Hawaii, on July 25, and was promptly recovered by the USS New Orleans. Mission duration was 217 hours.

STS-5: Brand was commander of Columbia for STS-5, the first fully operational flight of the Shuttle Transportation System, which launched on November 11, 1982. His crew comprised Colonel Robert Overmyer, pilot, and two mission specialists, Dr. Joseph Allen and Dr. William Lenoir. STS-5, the first mission with a four man crew, demonstrated the Shuttle as operational by the successful first deployment of two commercial communications satellites from the Orbiter's payload bay. The mission marked the Shuttle's first use of an upper stage rocket, the Payload Assist Module (PAM-D). The satellites were deployed for Satellite Business Systems Corporation of McLean, Virginia, and TELESAT of Ottawa, Canada. Two FAI records for mass to altitude were set on the mission. Numerous flight tests were performed to ascertain Shuttle performance. STS-5 was the last flight to carry the Development Flight Instrumentation package to support extensive flight testing. The STS-5 crew concluded the 5-day orbital flight of Columbia with the landing approach through a cloud deck to Runway 22 at Edwards Air Force Base, California on November 16, 1982. Mission duration was 122 hours.

STS 41-B: Brand commanded Challenger with a crew of five on the tenth flight of the Space Shuttle. The launch was on February 3, 1984. His crew included Commander Robert Gibson, pilot, and 3 mission specialists, Captain Bruce McCandless, II, Dr. Ronald McNair, and Lt. Col. Robert Stewart. The flight accomplished the proper shuttle deployment of two Hughes 376 communications satellites which failed to reach desired geosynchronous orbits due to upper stage solid rocket failures. This mission marked the first flight checkout of the Manned Maneuvering Unit (MMU) and the Manipulator Foot Restraint (MFR) with McCandless and Stewart performing two spectacular extravehicular activities (EVA's). Shuttle rendezvous sensors and computer programs were flight tested for the first time. The 8-day flight of Challenger ended with the first landing to the runway at the Kennedy Space Center on February 11, 1984. Mission duration was 191 hours.

STS-35: Brand again commanded Columbia on the thirty-eighth flight of the Shuttle, this time with a crew of seven. The night launch on December 2, 1990 started a 9-day mission devoted to round-the-clock observations of stars and other celestial objects. Crewmen included the pilot, Col. Guy Gardner; three mission specialists, Mike Lounge, Dr. Robert Parker and Dr. Jeffrey Hoffman; and two payload specialists, Dr. Samuel Durrance and Dr. Ronald Parise. The 13-ton payload consisted of the 3 ASTRO-1 Ultraviolet (UV) Telescopes and the Broad Band X-ray Telescope. More than 200 Orbiter maneuvers were required to point the telescopes. This Shuttle flight, the first dedicated to astronomy, provided a rich return of science data with emphasis on observation of very active celestial objects. A night landing was made on December 10 to Runway 22 at Edwards Air Force Base. Mission duration was 215 hours.

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