

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

BIOGRAPHICAL DATA SHEET

NAME: John E. Blaha

ORAL HISTORY: 3 December 2004
18 August 2006

EDUCATIONAL BACKGROUND:

B.S. in Engineering Science, United States Air Force Academy, Colorado Springs, CO, 1965
M.S. Astronautical Engineering, Purdue University, West Lafayette, IN, 1966

PRE-NASA EXPERIENCE:

United States Air Force (1966-1993)

- Pilot trainee, Williams Air Force Base, AZ (1966-1967)
- Pilot, 3 TFW, Bien Hoa, Republic of South Vietnam (1968)
- Pilot, 460th FIS, Klamath Falls, OR (1969-1970)
- Student, USAF Aerospace Research Pilot School, Edwards AFB, CA (1971)
- Instructor pilot, USAF Aerospace Research Pilot School, Edwards AFB, CA (1971-1973)
- Test Pilot, Royal Air Force Aeroplane and Armament Experimental Establishment, Boscombe Down, United Kingdom (1973-1976)
- Student, United States Air Force Air Command and Staff College, Maxwell AFB, AL (1977)
- Assistant Chief of Staff, Studies and Analyses, USAF Headquarters, Washington, DC (1978-1980)
- Detailed to NASA (1980-1993)
- Retired as Colonel (1993)

NASA EXPERIENCE:

Johnson Space Center, Houston, TX (1980-1997)

- Astronaut, Astronaut Office, Flight Crew Operations Directorate (1980-1997)

POST-NASA EXPERIENCE:

USAA (United Services Automobile Association), San Antonio, TX (1997-2005)

- Executive Management Group (1997-2005)

Brooks Aerospace Foundation, San Antonio, TX (1997-2005)

- Chairman, Board of Directors (1997-2005)

MISSIONS:

STS-29 (*Discovery*)

- Crew: Commander Michael L. Coats, Pilot John E. Blaha, Mission Specialist 1 James P. Bagian, Mission Specialist 2 James F. Buchli, Mission Specialist 3 Robert C. Springer
- Launched: 13 March 1989 at 9:57:00 A.M. EST from Kennedy Space Center, FL
- Duration: 4 days, 23 hours, 38 minutes, 52 seconds
- Landed: 18 March 1989 at 6:35:51 A.M. PST, Edwards AFB, California
- Mission Highlights: deployed the primary payload Tracking and Data Relay Satellite-4 (TDRS-4) and Inertial Upper Stage (IUS) booster approximately six hours into the flight. Secondary payloads included the Orbiter Experiments Autonomous Supporting Instrumentation System-1 (OASIS-1), the Protein Crystal Growth (PCG) experiment, the Space Station Heat Pipe Advanced Radiator Experiment (SHARE), the Chromosomes and Plant Cell Division experiment (CHROMEX), and two Shuttle Student Involvement Program (SSIP) experiments. The crew also participated in a ground-based Air Force experiment using the Orbiter as a calibration target, and photographed the Earth using a hand-held IMAX camera.

STS-33 (*Discovery*)

- Crew: Commander Frederick D. Gregory, Pilot John E. Blaha, Mission Specialist 1 F. Story Musgrave, Mission Specialist 2 Manley L. Carter, Jr., Mission Specialist 3 Kathryn C. Thornton
- Launched: 22 November 1989 at 7:23:30 P.M. EST from Kennedy Space Center, FL
- Duration: 5 days, 6 minutes, 49 seconds
- Landed: 27 November 1989 at 4:30:16 P.M. PST, Edwards AFB, California
- Mission Highlights: classified payload, fifth mission for the Department of Defense.

STS-43 (*Atlantis*)

- Crew: Commander John E. Blaha, Pilot Michael A. Baker, Mission Specialist 1 Shannon W. Lucid, Mission Specialist 2 James C. Adamson, Mission Specialist 3 G. David Low
- Launched: 2 August 1991 at 11:01:59 A.M. EDT from Kennedy Space Center, FL
- Duration: 8 days, 21 hours, 21 minutes, 25 seconds
- Landed: 11 August 1991 at 8:23:25 A.M. EDT, Kennedy Space Center, FL
- Mission Highlights: deployed the Tracking and Data Relay Satellite-5 (TDRS-5) and Inertial Upper Stage (IUS) booster approximately six hours into the flight. Secondary payloads included the Tank Pressure Control Equipment (TPCE), the Space Station Heat Pipe Advanced Radiator Element II (SHARE II), the Shuttle Solar Backscatter Ultra-Violet (SSBUV) instrument, and the Optical Communications Through Windows (OCTW). Onboard experiments included an Ultraviolet Plume Imager (UVPI), a Bioserve/Instrumentation Technology Associates Materials Dispersion Apparatus (BIMDA), the Protein Crystal Growth III (PCG III) experiment, the Solid

Surface Combustion Experiment (SSCE), the Auroral Photography Experiment (APE-B), the Air Force Maui Optical Site experiment (AMOS), the Investigations into Polymer Membrane Processing (IPMP), the Space Acceleration Management System (SAMS), the Solid Surface Combustion Experiment (SSCE), and the Lower Body Negative Pressure (LBNP) experiment.

STS-58 (*Columbia*)

- Crew: Commander John E. Blaha, Pilot Richard A. Searfoss, Mission Specialist 1 M. Rhea Seddon, Mission Specialist 2 William S. McArthur, Jr., Mission Specialist 3 David A. Wolf, Mission Specialist 4 Shannon W. Lucid, Payload Specialist 1 Martin Fettman
- Launched: 18 October 1993 at 10:53 A.M. EDT from Kennedy Space Center, FL
- Duration: 14 days, 12 minutes, 32 seconds
- Landed: 1 November 1993 at 7:05:42 A.M. PST Edwards AFB, California
- Mission Highlights: The fourteen-day life Spacelab research mission was the 4th longest mission in US manned space history. Payload included 48 rats held in 24 cages. Spacelab Life Sciences-2 (SLS-2) research included Cardiovascular System experiments, Regulatory System experiments, Neurovestibular System experiments, Musculoskeletal System Experiments, and Extended Duration Orbiter Medical Project experiments. Other experiments including crew utilization of the Lower Body Negative Pressure device and the Accelerometer Recording Unit. The Shuttle Amateur Radio Experiment-II (SAREX-II), the Orbital Acceleration Research Experiment (OARE), the Pilot Inflight Landing Operations Trainer (PILOT), and the Standard Interface Rack (SIR) tests were some of the 16 engineering tests conducted while in orbit. Approximately 4,000 photographs were taken during the mission, including infrared photography of wildfires.

STS-79 (*Atlantis*)

- Crew: Commander William F. Readdy, Pilot Terrence W. Wilcutt, Mission Specialist 1 Jay Apt, Mission Specialist 2 Thomas D. Akers, Mission Specialist 3 Carl E. Walz, Mission Specialist 4 John E. Blaha (Launch-Docking), Mission Specialist 4 Shannon W. Lucid (Docking-Landing).
- Launched: 16 September 1996 at 4:54:49 A.M. EDT from Kennedy Space Center, FL
- Duration: 10 days, 3 hours, 19 minutes, 28 seconds
- Landed: 26 September 1996 at 8:13:20 A.M. EDT, Kennedy Space Center, FL
- Mission Highlights: rendezvous and docking with Russian Mir space station, first exchange of American astronauts utilizing the Shuttle with Blaha replacing Lucid on board Mir, first flight of a double Spacehab module, delivery of logistics equipment to the space station, and transfer of two commercial payloads to the station. Experiments included Environmental Radiation Measurements, Greenhouse-Integrated Plant Experiments, and Assessment of Humoral Immune Function During Long Duration Space Flight. The commercial payload components included the Biotechnology System (BTS), Material in Devices as Superconductors (MIDAS), the Commercial Generic Bioprocessing Apparatus (CGBA), the Extreme Temperature Translation Furnace (ETTF), the Commercial Protein Crystal Growth experiments

(CPCG), and the Mechanics of Granular Materials experiment. Space Station Risk Mitigation experiments conducted while in orbit included the Mir Electric Field Characterization experiment, the Real-time Radiation Monitoring Device (RRMD), the Active Rack Isolation System (ARIS), and an Inventory Management System (IMS) utilizing a bar code reader to track items transferred between the Shuttle and the Space Station. Other experiments included the Shuttle Amateur Radio Experiment (SAREX) use of an IMAX camera to document activities on *Atlantis* and Mir.

Mir-22

- Crew: Cosmonauts Valeri Korzun and Alexander Kaleri, astronaut John E. Blaha
- Launched: 17 August 1996 from Baikonur Cosmodrome, Kazakhstan
- Landed: 2 March 1997
- Mission Highlights: Blaha joined the crew in September when the Shuttle docked with the Mir. He spent four months performing Space Station operations, performing life science and material science research, built a Space Station stowage process, and worked with the STS-81 team to build crew handover procedures that were used when Jerry M. Linenger arrived on STS-81.

STS-81 (*Atlantis*)

- Crew: Commander Michael A. Baker, Pilot Brent W. Jett, Mission Specialist 1 Peter J.K. Wisoff, Mission Specialist 2 John M. Grunsfeld, Mission Specialist 3 Marsha S. Ivins, Mission Specialist 4 Jerry M. Linenger (Launch-Docking), Mission Specialist 4 John E. Blaha (Docking-Landing).
- Launched: 12 January 1997 at 4:27:23 A.M. EST from Kennedy Space Center, FL
- Duration: 10 days, 4 hours, 56 minutes, 30 seconds
- Landed: 22 January 1997 at 9:23 A.M. EST, Kennedy Space Center, FL
- Mission Highlights: rendezvous and docking with Russian Mir space station, second exchange of American astronauts utilizing the Shuttle with Linenger replacing Blaha on board Mir, the second flight of KidSat, and delivery of logistics equipment to the space station. Experiments included the Mir Sample Return Experiment (MSRE), the Particle Impact Experiment (PIE), Environmental Radiation Measurements, Greenhouse-Integrated Plant Experiments, Assessment of Humoral Immune Function During Long Duration Space Flight, Diffusion-controlled Crystallization Apparatus for Microgravity (DCAM), the Optical Properties Monitor (OPM), and the Liquid Metal Diffusion (LMD) conducted on the Microgravity Isolation Mount (MIM). The mission also included the use of a Gaseous Nitrogen Dewar for transport of frozen protein samples to the Mir space station.

AWARDS & CITATIONS:

- Outstanding Junior Officer of the Year, 3rd Tactical Fighter Wing.
- Outstanding Pilot, F-4 Combat Crew Training.
- Legion of Merit
- Air Force Distinguished Flying Crosses (2)
- Defense Meritorious Service Medal
- Meritorious Service Medals (3)
- Air Medals (18)
- Air Force Commendation Medal
- British Royal Air Force Cross
- Vietnam Cross of Gallantry
- Defense Superior Service Medal
- Distinguished Graduate Air Force Test Pilot School.
- Distinguished Graduate Air Command and Staff College.
- NASA Exceptional Service Medal (1990)
- NASA Space Flight Medal (5)
- NASA Distinguished Service Medal (2: 1990, 1997)
- Countdown Magazine Outstanding Astronaut of 1991
- NASA Outstanding Leadership Medal (1992)
- Stephen D. Thorne "Top Fox" Award (1992)
- JSC Certificate of Commendation (1993)
- Russian Order of Friendship Medal (1997)
- Planet Blaha designated by International Astronomical Union and Smithsonian Astrophysical Observatory
- Purdue Outstanding Aerospace Engineer Award
- Purdue Engineering Alumnus Award
- University Roundtable Annual Best and Brightest Award.

REFERENCES:

"100 employees to receive JSC's highest honor," Space News Roundup (NASA Lyndon B. Johnson Space Center), 17 May 1993, 1,4.

Johnson Space Center News Release, "Astronaut Candidates Complete Training," JSC Announcement 81-029, 21 August 1981, Public Affairs Office, NASA Lyndon B. Johnson Space Center, Houston, TX

"CIO Magazine Publisher Debates National Technology Policy with Distinguished Panel at April CIO Perspectives Conference," CIO.com Homepage, Online, http://www2.cio.com/info/releases/031804118_release.html (Last Updated 18 March 2004; Accessed 24 June 2004)

"Committee Membership," The National Academy of Sciences Homepage, Online, <http://www4.nas.edu/webcr.nsf/CommitteeDisplay/ASEB-J-98-04-A?OpenDocument> (Last Updated 2004; Accessed 24 June 2004)

“Employees honored with NASA medals,” Space News Roundup (NASA Lyndon B. Johnson Space Center), 15 April 1994, 1,4.

“Flight Crew Operations workers earn Aviation Safety Awards,” Space News Roundup (NASA Lyndon B. Johnson Space Center), 20 November 1992, 4.

Jim Dumoulin, ed., "STS-29," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-29/mission-sts-29.html> (Last Updated 29 June 2001; Accessed 25 June 2004)

Jim Dumoulin, ed., "STS-33," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-33/mission-sts-33.html> (Last Updated 29 June 2001; Accessed 25 June 2004)

Jim Dumoulin, ed., "STS-43," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-43/mission-sts-43.html> (Last Updated 29 June 2001; Accessed 25 June 2004)

Jim Dumoulin, ed., "STS-58," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-58/mission-sts-58.html> (Last Updated 29 June 2001; Accessed 25 June 2004)

John E. Blaha NASA Biographical Data Sheet, January 1995, Blaha, John E. Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX

Johnson Space Center News Release, "Veteran Shuttle Commander Retires," JSC Announcement H97-196, 12 September 1997, Public Affairs Office, NASA Lyndon B. Johnson Space Center, Houston, TX

Johnson Space Center Telephone Directory, July 1984, Organized Files, Center Series, History Collection, Scientific and Technical Information Center, NASA Lyndon B. Johnson Space Center, Houston, TX.

“JSC people earn NASA honors,” Space News Roundup (NASA Lyndon B. Johnson Space Center), 15 June 1990, 1,4.

"Purdue University Annual Fall Space Day," Purdue University Homepage, Online, https://engineering.purdue.edu/FallSpaceDay/History/2003_bio (Last Updated January 2000; Accessed 25 June 2004)

"Space Shuttle Mission STS-58 Press Kit," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-58/sts-58-press-kit.txt> (Last Updated n.d.; Accessed 29 June 2004)

"Space Shuttle Mission STS-79 Press Kit," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-79/sts-79-press-kit.txt> (Last Updated n.d.; Accessed 29 June 2004)

"Space Shuttle Mission STS-81 Press Kit," Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-81/sts-81-press-kit.txt> (Last Updated n.d.; Accessed 29 June 2004)

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