

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

BIOGRAPHICAL DATA SHEET

NAME: Guion S. "Guy" Bluford, Jr.

ORAL HISTORY: 2 August 2004

EDUCATIONAL BACKGROUND:

B.S. in Aerospace Engineering, Pennsylvania State University, University Park, PA, 1964

M.S. in Aerospace Engineering, Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, 1974

Ph.D. in Aerospace Engineering, Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, 1978

M.B.A., University of Houston-Clear Lake, Houston, Texas, 1987

PRE-NASA EXPERIENCE:

United States Air Force (1964-1993)

- Pilot Training, Williams Air Force Base, Arizona (1964-66)
- F-4C combat crew training, Arizona and Florida (1966)
- 557th Tactical Fighter Squadron, Cam Ranh Bay, Vietnam (1966)
- T-38A Instructor Pilot, 3630th Flying Training Wing, Sheppard Air Force Base, Texas (1967-71)
- Squadron Officers School (1971)
- Deputy Commander of Operations and School Secretary, 3630th Flying Training Wing, Sheppard Air Force Base, Texas (1971)
- Staff Development Engineer, Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio (1974)
- Deputy Chief for Advanced Concepts, Aerodynamics and Airframe Branch, Aeromechanics Division, Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio (1975-76)
- Branch Chief, Aerodynamics and Airframe Branch, Aeromechanics Division, Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio (1977-78)
- Detailed to NASA (1978)

NASA EXPERIENCE:

NASA Johnson Space Center, Houston, TX (1978-1993)

- Astronaut, Astronaut Office, Flight Crew Operations Directorate (1978-1993)
- Retired from NASA and Air Force active duty at rank of Colonel (1993)

POST-NASA EXPERIENCE:

NYMA Inc., Cleveland, OH (1993-1997)

- Vice President, Engineering Services Division (1993-1997)

Federal Data Corporation, Cleveland, OH (1997-2000)

- Vice President, Aerospace Sector (1997-2000)

Northrop Grumman Corporation, Cleveland, OH (2000-2002)

- Vice President, Microgravity R&D and Operations (2000-2002)

Aerospace Technology Group, Cleveland, OH (2002-present)

- President (2002-present)

MISSIONS:

STS-8 (*Challenger*)

- Crew: Commander Richard H. Truly, Pilot Daniel C. Brandenstein, Mission Specialist 1 Dale A. Gardner, Mission Specialist 2 Guion S. "Guy" Bluford, Mission Specialist 3 William E. Thornton
- Launched: 30 August 1983 at 2:32:00 A.M. EDT from Kennedy Space Center, FL (First Night Launch of the Space Shuttle)
- Duration: 6 days, 1 hours, 8 minutes, 43 seconds
- Landed: 5 September 1983 at 12:40:43 A.M. PDT, Edwards Air Force Base, California (First Night Landing of the Space Shuttle)
- Mission Highlights: Bluford became first Black American to fly in space. The crew launched INSAT-1B Indian satellite, performed an orbiter flight deck temperature test, conducted Development Flight Instrumentation Pallet experiments, carried out orbiter/atomic oxygen skin tests, tested the Remote Manipulator System, conducted numerous biofeedback experiments, completed tests between the orbiter and Tracking and Data Relay Satellite-1 (TDRS-1), and conducted investigations of Space Adaptation Syndrome. Additional payloads included: Continuous Flow Electrophoresis System (CFES), Space Shuttle Student Involvement Program experiment, Incubator-Cell Attachment Test, Investigation of STS Atmospheric Luminosities, Radiation Monitoring Equipment (RME), and five Get Away Special experiment packages including eight cans of postal covers.

STS 61-A (*Challenger*)

- Crew: Commander Henry W. Hartsfield, Jr., Pilot Steven R. Nagel, Mission Specialist 1 James F. Buchli, Mission Specialist 2 Guion S. "Guy" Bluford, Jr., Mission Specialist 3 Bonnie J. Dunbar, Payload Specialist 1 Reinhard Furrer, Payload Specialist 2 Ernst Messerschmid, Payload Specialist 3 Wubbo J. Ockels (ESA)
- Launched: 30 October 1985 at 12:00:00 noon EST from Kennedy Space Center, FL
- Duration: 7 days, 0 hours, 44 minutes, 51 seconds
- Landed: 6 November 1985 at 9:44:51 A.M. PST, Edwards Air Force Base, California
- Mission Highlights: STS 61-A was a Spacelab D-1 dedicated mission purchased by the Federal Republic of Germany. The mission carried 8 crewmembers, requiring the 8th person to sleep aboard the Spacelab module. The crew completed 76 numbered experiments encompassing basic and applied micro-gravity research in the fields of materials science, life sciences, technology, communications, and navigation. In addition to Spacelab, *Challenger* carried the Global Low Orbit Message Relay (GLOMR-RFL) satellite that was deployed from a Get Away Special (GAS) canister.

STS-39 (*Discovery*)

- Crew: Commander Michael L. Coats, Pilot L. Blaine Hammond, Jr., Mission Specialist 1 Gregory J. Harbaugh, Mission Specialist 2 Donald R. McGonagle, Mission Specialist 3 Guion S. "Guy" Bluford, Mission Specialist 4 Charles L. "Lacy" Veach, Mission Specialist 5 Richard J. Hieb
- Launched: 28 April 1991 at 7:33:14 A.M. EDT from Kennedy Space Center, FL
- Duration: 8 days, 7 hours, 23 minutes, 17 seconds
- Landed: 6 May 1991 at 2:55:35 P.M. EDT, Edwards Air Force Base, California
- Mission Highlights: STS-39 was the first unclassified Department of Defense Shuttle mission. It was also the first flight to carry seven astronauts into space. The crew made the first rocket engine plume observations ever outside the Earth's atmosphere, executed a record 35 firings of the orbital maneuvering and reaction control systems, deployed three Chemical Release Observation (CRO) sub-satellites, collected light data on aurora and other objects, photographed Earth surface features, and deployed a classified Multi-Purpose Experiment Canister (MPEC). Other payloads included: Air Force Program-675 (AFP-675), Infrared Background Signature Survey (IBSS), Cloud Logic to Optimize Use of Defense Systems (CLOUDS), and Radiation Monitoring Experiment III (RME-III).

STS-53 (*Discovery*)

- Crew: Commander David M. Walker, Pilot Robert D. Cabana, Mission Specialist 1 Guion S. "Guy" Bluford, Mission Specialist 2 James S. Voss, Mission Specialist 3 Michael R. Clifford
- Launched: 2 December 1992 at 8:24:00 A.M. EST from Kennedy Space center, FL
- Duration: 7 days, 7 hours, 19 minutes, 17 seconds
- Landed: 9 December 1992 at 3:43:17 P.M. EST, Edwards Air Force Base, California
- Mission Highlights: The crew deployed a classified Department of Defense primary payload, conducted the Hand-held, Earth-Oriented, Real-time, Cooperative targeting and Environmental System (HERCULES) experiment, tested new fluid handling devices in the Fluid Acquisition and Resupply Experiment (FARE), and performed the Battlefield Laser Acquisition Sensor Test (BLAST). Additional payloads included: Orbital Debris Radar Calibration Spheres (ODERACS), the combined Shuttle Glow Experiment/Cryogenic Heat Pipe Experiment (GCP), Cloud Logic to Optimize Use of Defense Systems (CLOUDS), Cosmic Radiation Effects and Activation Monitor (CREAM), Microcapsules in Space (MIS), Radiation Monitoring Experiment III (RME-III), Space Tissue Loss Experiment (STL), and Visual Function Tester-2 (VFT-2).

AWARDS & CITATIONS:

- Leadership Award, Phi Delta Kappa, 1962
- National Defense Service Medal, 1965
- Vietnam Campaign Medal, 1967
- Vietnam Cross of Gallantry with Palm, 1967
- Vietnam Service Medal, 1967
- 10 Air Force Medals, 1967
- Air Force Outstanding Unit Awards, 1967, 1970, 1972
- Germany Air Force Aviation Badge from the Federal Republic of West Germany, 1969
- Air Force Commendation Medal, 1972
- Air Force Institute of Technology's Mervin E. Gross Award, 1974
- Who's Who Among Black Americans, 1975-77
- Air Force Meritorious Service Award, 1979
- Four NASA Group Achievement Awards, 1980, 1981, 1989, 2003
- U.S. Air Force Command Pilot Astronaut Wings, 1983
- Pennsylvania State University Alumni Association's Distinguished Alumni Award, 1983
- Ebony Magazine Black Achievement Award, 1983
- NAACP Image Award, 1983
- NASA Spaceflight Medals, 1983, 1985, 1991, 1992
- Pennsylvania's Distinguished Service Medal, 1984
- Department of Defense Superior Service Medal, 1984
- Pennsylvania State University Alumni Fellows Award, 1986
- New York City Urban League Whitney Young Award, 1986
- AIAA Distinguished Aerospace Professional Award, 1987
- Department of Defense Meritorious Service Medal, 1989, 1992, 1993
- Slippery Rock University Award of Achievement, 1990
- Black Military History Institute of America Buffalo Soldier Award, 1990
- The Equitable Financial Companies Black Achievement Award, 1990
- Black Engineer of the Year Award, 1991
- Aerospace Laureate Award in the Space/Missiles category, 1991
- NASA Exceptional Service Medal, 1992
- Federation Aeronautique Internationale Komarov Diploma, 1993
- National Intelligence Medal of Achievement, 1993
- Legion of Merit, 1993
- NASA Distinguished Service Medal, 1994
- Air Force Institute of Technology Distinguished Alumni Award, 2002
- University of Houston-Clear Lake, Distinguished Alumni Award, 2003
- 13 honorary doctorate degrees

SELECT PUBLICATIONS & PATENTS:

"A Numerical Solution for the Supersonic and Hypersonic Viscous Flow Around Thin Planar Delta Wings," Air Force Flight Dynamics Laboratory Report, TR78-98 (Dayton: Wright-Patterson AFB, 1978).

"A Numerical Solution of the Supersonic and Hypersonic Viscous Flow Around Thin Delta Wings," AIAA Paper 78-1136R, (Dayton: Wright-Patterson AFB, 1978).

"Crew Activities in Space: Spacecraft Dynamics as Related to Laboratory Experiments in Space," NASA Conference Publication 2199 (Houston: NASA Lyndon B. Johnson Space Center, 1979).

"A Numerical Solution of the Supersonic and Hypersonic Viscous Flow Around Thin Delta Wings," AIAA Journal 17, no. 9(1979).

"The Space Age: An Ongoing Revolution in Technology," American Space Foundation News 3, no. 3 (1985).

"Applying Science in Space to Practical Needs" in Space: National Programs and International Cooperation, Westview Press, 1989.

"Dedication, Desire, and Determination," The College Digest 2, no. 1 (1989-90).

"My First Flight into Space," The Christian Science Sentinel, 104, no. 37 (September 16, 2002).

REFERENCES:

"Flight 08 STS 8 Mission Summary," NASA Spacelink Shuttle Missions Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human.Exploration.and.Development.of.Space/Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.008.STS-8/Mission.Summary> (n.d.; Accessed 15 May 2002).

"Flight 022 STS 61-A Mission Summary," NASA Spacelink Shuttle Missions Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human.Exploration.and.Development.of.Space/Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.022.STS-61-A/index.html> (n.d.; Accessed 15 May 2002).

"Flight 040 STS-39 Mission Summary," NASA Spacelink Shuttle Missions Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human.Exploration.and.Development.of.Space/Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.040.STS-39/Mission.Summary> (n.d.; Accessed 15 May 2002).

"Flight 052 STS-53 Mission Highlights," NASA Spacelink Shuttle Missions Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human.Exploration.and.Development.of.Space/Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.052.STS-53/Mission.Highlights> (n.d.; Accessed 15 May 2002).

Guion S. Bluford, Jr. NASA Biographical Data Sheet (January 1996), Guion S. Bluford, Jr. Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

"Guion S. Bluford, Jr." NASA Ohio Astronauts Homepage, Online, <http://www.grc.nasa.gov/WWW/PAO/html/ohioast.htm> (Last Updated August 1999; Accessed 15 May 2002).

National Academy of Engineering, "Membership Nomination Form," n.d., Guion S. Bluford Key Personnel File, Awards Office, NASA Lyndon B. Johnson Space Center, Houston, TX.

"Shuttle Mission Archive," Kennedy Space Center Public Affairs Office Homepage, Online, <http://www.ksc.nasa.gov/shuttle/missions/sts-8/mission-sts-8.html> (Last Updated 29 June 2000; Accessed 16 April 2002).

"Shuttle Mission Archive," Kennedy Space Center Public Affairs Office Homepage, Online, <http://www-pao.ksc.nasa.gov/kscpao/shuttle/missions/61-a/mission-61-a.html> (Last Updated 7 November 2000; Accessed 16 April 2002).

"Shuttle Mission Archive," Kennedy Space Center Public Affairs Office Homepage, Online, <http://www.ksc.nasa.gov/shuttle/missions/sts-39/mission-sts-39.html> (Last Updated 29 June 2000; Accessed 16 April 2002).

"Shuttle Mission Archive," Kennedy Space Center Public Affairs Office Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-53/mission-sts-53.html> (Last Updated 29 June 2000; Accessed 16 April 2002).

BIOGRAPHICAL DATA SHEET CREATED: 5 JUNE 2002