

Guion Bluford

Guion Stewart Bluford Jr., Ph.D. (born November 22, 1942), (Col, USAF, Ret.), is an American aerospace engineer, retired U.S. Air Force officer and fighter pilot, and former NASA astronaut, who is the first African American^{[1][a]} and the second person of African descent to go to space. Before becoming an astronaut, he was an officer in the U.S. Air Force, where he remained while assigned to NASA, rising to the rank of colonel. He participated in four Space Shuttle flights between 1983 and 1992. In 1983, as a member of the crew of the Orbiter *Challenger* on the mission STS-8, he became the first African American in space as well as the second person of African ancestry in space, after Cuban cosmonaut Arnaldo Tamayo Méndez.

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Early life

Born in Philadelphia, Pennsylvania, Bluford graduated from Overbrook High School in 1960. He received a Bachelor of Science degree in Aerospace Engineering from Pennsylvania State University in 1964, a Master of Science degree in Aerospace Engineering from the U.S. Air Force Institute of Technology (AFIT) in 1974, a Doctor of Philosophy degree in Aerospace Engineering with a minor in Laser Physics, again from AFIT, in 1978, and a Master of Business Administration degree from the University of Houston–Clear Lake in 1987.^[2] He has also attended the Wharton School of Business of the University of Pennsylvania.

His hobbies include reading, swimming, jogging, racquetball, handball, scuba diving and golf. He married Linda Tull in 1964 and has two sons, Guion III and James.^[3]

Air Force career

Colonel
Guion Bluford



Born
Guion Stewart Bluford Jr.
November 22, 1942
Philadelphia, Pennsylvania, U.S.

Status
Retired

Nationality
American

Alma mater
Penn State, B.S. 1964
AFIT, M.S. 1974,
Ph.D. 1978
UHCL, MBA 1987

Occupation
Fighter pilot, engineer

Space career

NASA Astronaut

Rank
 Colonel, USAF

Time in space
28d 16h 33m

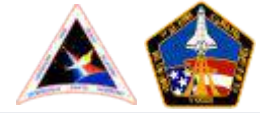
Selection
1978 NASA Group 8

Missions
STS-8, STS-61-A, STS-39, STS-53

Mission insignia



Bluford attended pilot training at Williams Air Force Base, and received his pilot wings in January 1966. He then went to F-4C combat crew training in Arizona and Florida and was assigned to the 557th Tactical Fighter Squadron, Cam Ranh Bay, Vietnam. He flew 144 combat missions, 65 of which were over North Vietnam.



In July 1967, Bluford was assigned to the 3630th Flying Training Wing, Sheppard Air Force Base, Texas, as a T-38 A instructor pilot. He served as a standardization/evaluation officer and as an assistant flight commander. In early 1971, he attended Squadron Officer School and returned as an executive support officer to the Deputy Commander of Operations and as School Secretary for the Wing.

In August 1972, Bluford entered the U.S. Air Force Institute of Technology residency school at Wright-Patterson Air Force Base, Ohio. Upon graduating in 1974 with his master's degree,^[4] he was assigned to the Air Force Flight Dynamics Laboratory at Wright-Patterson Air Force Base as a staff development engineer. He served as deputy for advanced concepts for the Aeromechanics Division and as branch chief of the Aerodynamics and Air frame Branch in the Laboratory. He has written and presented several scientific papers in the area of computational fluid dynamics.

He has logged over 5,200 hours of jet flight time in the T-33, T-37, T-38, F-4C, U-2/TR-1, and F-5A/B aircraft, including 1,300 hours as a T-38 instructor pilot. He also has an FAA commercial pilot license.

NASA career



Astronaut candidates Ronald McNair, Guy Bluford, and Fred Gregory wearing Apollo spacesuits, May 1978

Bluford was chosen to become a NASA astronaut in August 1979^[2] out of thousands of possible candidates. His technical assignments have included working with Space Station operations, the Remote Manipulator System (RMS), Spacelab systems and experiments, Space Shuttle systems, payload safety issues and verifying flight software in the Shuttle Avionics Integration Laboratory (SAIL) and in the Flight Systems Laboratory (FSL). Bluford was a mission specialist on STS-8, STS-61-A, STS-39, and STS-53.^[4]

Bluford's first mission was STS-8, which launched from Kennedy Space Center, Florida, on August 30, 1983. This was the third flight for the Orbiter *Challenger* and the first mission with a night launch and night landing. During the mission, the STS-8 crew deployed the Indian National Satellite (INSAT-1B); tested the Canadian-built robotic arm (the Shuttle Remote Manipulator System (SRMS) or Canadarm) with the Payload Flight Test Article (PFTA); operated the Continuous Flow Electrophoresis System (CFES) with live cell samples; conducted medical measurements to understand biophysiological effects of space flight; and activated four "Getaway Special" canisters. STS-8 completed 98 orbits of the Earth in 145 hours before landing at Edwards Air Force Base, California, on September 5, 1983.

Bluford then served on the crew of STS-61-A, the German D-1 Spacelab mission, which launched from Kennedy Space Center on October 30, 1985. This mission was the first to carry eight crew members, the largest crew to fly in space and included three European payload specialists. This was the first dedicated Spacelab mission under the direction of the German Aerospace Research Establishment (DFVLR) and the first U.S. mission in which payload control was transferred to a foreign country (German Space Operations Center, Oberpfaffenhofen, Germany). During the mission, the Global Low Orbiting Message Relay

Satellite (GLOMR) was deployed from a "Getaway Special" (GAS) container, and 76 experiments were performed in Spacelab in such fields as fluid physics, materials processing, life sciences, and navigation. After completing 111 orbits of the Earth in 169 hours, *Challenger* landed at Edwards Air Force Base on November 6, 1985.



Bluford on STS-8 in 1983

Bluford also served on the crew of STS-39, which launched from Kennedy Space Center on April 28, 1991, aboard the Orbiter *Discovery*. The crew gathered aurora, Earth-limb, celestial, and Shuttle environment data with the AFP-675 payload. This payload consisted of the Cryogenic Infrared Radiance Instrumentation for Shuttle (CIRRIS-1A) experiment, Far Ultraviolet Camera experiment (FAR UV), the Uniformly Redundant Array (URA), the Quadrupole Ion Neutral Mass Spectrometer (QINMS), and the Horizon Ultraviolet Program (HUP) experiment. The crew also deployed and retrieved the SPAS-II which carried the Infrared Background Signature Survey (IBSS) experiment. The crew also operated the Space Test Payload-1 (STP-1) and deployed a classified payload from the Multi-Purpose Experiment Canister (MPEC). After completing 134 orbits of the Earth and 199 hours in space, *Discovery* landed at the Kennedy Space Center on May 6, 1991.

Bluford's last mission was STS-53, which launched from Kennedy Space Center on December 2, 1992. The crew of five deployed the classified Department of Defense payload DOD-1 and then performed several Military-Man-in-Space and NASA experiments. After completing 115 orbits of the Earth in 175 hours, *Discovery* landed at Edwards Air Force Base on December 9, 1992.

With the completion of his fourth flight, Bluford has logged over 688 hours in space.

Bluford, an Eagle Scout, was designated as the emissary to return the *Challenger* flag to Boy Scout Troop 514 of Monument, Colorado in December 1986. On December 18 of that year, he presented the flag to the troop in a special ceremony at Falcon Air Force Base.

Post-NASA career

Bluford left NASA and retired from the Air Force in July 1993 to take the post of Vice President/General Manager, Engineering Services Division of NYMA, Greenbelt, Maryland. In May 1997, he became Vice President of the Aerospace Sector of Federal Data Corporation and in October 2000, became the Vice President of Microgravity R&D and Operations for the Northrop Grumman Corporation. He retired from Northrop Grumman in September 2002 to become the President of Aerospace Technology, an engineering consulting organization in Cleveland, Ohio.

Bluford was inducted into the International Space Hall of Fame in 1997,^[4] and inducted into the United States Astronaut Hall of Fame in 2010.^[5]

In 2002, scholar Molefi Kete Asante listed Bluford on his list of 100 Greatest African Americans.^[6] In 2006, Bluford was recognized as a distinguished alumnus of Penn State by being selected as the Grand Marshal for his alma mater's Homecoming celebration.^[7]

Organizations

Bluford is a member and a fellow of many organizations:

- Fellow, American Institute of Aeronautics and Astronautics
- Board of Governors, National Space Club (1997 to 2001)
- Board of Directors, National Inventor's Hall of Fame Foundation (1997 to 2002)
- Board of Directors, The Western Reserve Historical Society (1997 to 2003)

- Board of Directors, The Great Lakes Science Center (1997 to 2003)
- National Research Council (NRC) Aeronautics and Space Engineering Board, (1993 to 1998)
- Board of Directors, American Institute of Aeronautics and Astronautics, (1995 to 2001)
- Board of Directors, U.S. Space Foundation (2000 to 2006)
- Board of Directors, ENSCO, Inc., (2005 to present)
- Board of Trustees, The Aerospace Corporation (1999 to 2008)
- Executive Director of Investigative Activities, Columbia Accident Investigation Board (2003)
- Society of Distinguished Alumni, Pennsylvania State University (1986 to present)
- Committee on Minority Activities, Penn State College of Engineering, Pennsylvania State University (1986 to 2006)
- Leadership Cleveland (1995 to present)
- Board of Visitors, Hiram College, (2004 to 2009)
- Board of Advisors, Coalition for Space Exploration (2006 to 2010)
- Tau Beta Pi
- Omicron Delta Kappa
- Sigma Iota Epsilon
- National Technical Association and Tuskegee Airmen.



Some of NASA's first African-American astronauts including Ronald McNair, Guy Bluford, and Frederick D. Gregory from the class of 1978 selection of astronauts.

Awards and honors

- USAF Command Pilot Astronaut Wings (1983)
- Defense Superior Service Medal (1984)
- Legion of Merit (1993)
- three Defense Meritorious Service Medals (1986, 1992 and 1993)
- Air Force Meritorious Service Medal (1978)
- ten Air Force Air Medals (1967)
- Air Force Commendation Medal (1972)
- three Air Force Outstanding Unit Awards (1967, 1970 and 1972)
- National Intelligence Medal of Achievement (1993)
- National Defense Service Medal (1965)
- Vietnam Service Medal (1967)
- Vietnam Cross of Gallantry with Palm (1967)
- Vietnam Campaign Medal (1967)
- NASA Distinguished Service Medal (1994)
- NASA Exceptional Service Medal (1992)
- four NASA Group Achievement Awards (1980, 1981, 1989, and 2003)
- NASA Space Flight Medals (1983, 1985, 1991 and 1992)
- German Air Force (Luftwaffe) Aviation Badge from the Federal Republic of West Germany (1969)
- Leadership Award of Phi Delta Kappa (1962)
- T-38 Instructor Pilot of the Month (1970)
- Air Training Command Outstanding Flight Safety Award (1970)
- Air Force Institute of Technology's Mervin E. Gross Award (1974)
- Who's Who Among Black Americans (1975 to 1977)
- National Society of Black Engineers Distinguished National Scientist Award (1979)
- Pennsylvania State University Alumni Association's Distinguished Alumni Award (1983), the Alumni Fellows Award (1986)
- Ebony Black Achievement Award (1983)
- NAACP Image Award (1983)
- City of Philadelphia's Philadelphia Bowl (1983)

- Who's Who in America (1983 to present)
- Pennsylvania Distinguished Service Medal (1984)
- New York City Urban League's Whitney Young Memorial Award
- 1991 Black Engineer of the Year Award
- Fédération Aéronautique Internationale (FAI) V. M. Komarov Diploma (1993)
- International Space Hall of Fame inductee (1997)
- U.S. Astronaut Hall of Fame inductee (2010)
- Air Force Institute of Technology Distinguished Alumni Award (2002)
- University of Houston-Clear Lake Distinguished Alumni Award (2003)
- The Pennsylvania Society Gold Medal (2011)

He also received honorary doctorate degrees from Florida A&M University,^[8] Texas Southern University, Virginia State University, Morgan State University, Stevens Institute of Technology, Tuskegee Institute, Bowie State College, Thomas Jefferson University, Chicago State University, Georgian Court University, Drexel University, Kent State University, Central State University and the University of the Sciences.

Bluford Drew Jemison STEM Academy West, a Middle/High School in Baltimore, Maryland, is named in his honor (along with Charles Drew and Mae Jemison).

On July 25, 2017, the Philadelphia Orchestra premiered *Hold Fast to Dreams*, a 25-minute piece for orchestra and choir in four movements, commissioned by the Mann Center for the Performing Arts in honor of Bluford, and written by composer Nolan Williams Jr.^{[9][10]}

Notes

- a. Robert Henry Lawrence Jr. was the first African American selected as an astronaut but did not go to space.

References

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3. "Guy Bluford: Biography from Answers.com" (<http://www.answers.com/topic/guy-bluford>).
4. "Guion S. Bluford Jr. Biography from Who 2.com" (<http://www.who2.com/guionbluford.html>).
5. "2010 U.S. Astronaut Hall of Fame Induction Gala" (https://web.archive.org/web/20100501074629/http://astronautscholarship.org/2010ahof_induction.html). Astronaut Scholarship Foundation. Archived from the original (http://www.astronautscholarship.org/2010ahof_induction.html) on May 1, 2010. Retrieved May 10, 2010.
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7. Ranalli, Melanie (September 19, 2006). "Penn State astronaut selected homecoming grand marshal" (<https://web.archive.org/web/20120306060631/http://live.psu.edu/story/19471>). Pennsylvania State University. Archived from the original (<http://live.psu.edu/story/19471>) on March 6, 2012. Retrieved June 5, 2010.
8. "FAMU to Give Bluford Honorary Degree" (https://www.newspapers.com/clip/35554579/florida_today/). *Florida Today*. Cocoa, Florida. Associated Press. October 13, 1983. p. 12A – via Newspapers.com.
9. Dorbin, Peter (July 26, 2017). "Philly astronaut Bluford gets his props at the Mann – and a soaring orchestral number in his honor" (<http://www.philly.com/philly/entertainment/arts/philly-astronaut-bluford-mann-center-philadelphia-orchestra-derrick-pitts-20170726.html>). *Philly.com*. Retrieved August 6, 2017.
10. Writer, Chanel Hill Tribune Staff (July 28, 2017). "Mann's space-themed concert honors Black astronaut" (http://www.phillytrib.com/entertainment/mann-s-space-themed-concert-honors-black-astronaut/article_f34da558-a23b-5d

External links

- "Astronaut Bio: Guion S. Bluford Jr. (10/2009)" (<http://www.jsc.nasa.gov/Bios/htmlbios/bluford-gs.html>). *nasa.gov*.
 - "Guion "Guy" Bluford Biography – NASA Astronaut – First African American In Space" (<http://space.about.com/cs/formerastronauts/a/guionbluford.htm>). *about.com*.
 - Guion "Guy" Bluford *Penn State African American Chronicles* profile and interview (http://www.blackhistory.psu.edu/timeline/guion_s_bluford_first_african_american_in_space/)
 - Guy Bluford interviewed on *Conversations from Penn State* (<https://www.youtube.com/watch?v=wr9s377Lpn0/>)
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