NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT
BIOGRAPHICAL DATA SHEET

NAME: Michael "Mike" L. Coats

ORAL HISTORY: 16 April 2008; 10 October 2012; 9 November 2012

EDUCATIONAL BACKGROUND:

B.S., United States Naval Academy, Annapolis, MD, 1968

M.S. in Administration of Science and Technology, George Washington University, Washington, D.C., 1977

M.S. in Aeronautical Engineering, U.S. Naval Postgraduate School, Monterey, CA, 1979

PRE-NASA EXPERIENCE:

United States Navy (1964-1991)

- Pilot's training, designated a Naval Aviator (1969)
- A-7E Pilot Training (1969-1970)
- Naval Aviator, Attack Squadron 192 (VA-192) (1970-1972)
- Flight Instructor, Readiness Training Squadron (VA-122), Naval Air Station, Lemoore, CA (1972-1973)
- Test Pilot Student, U.S. Naval Test Pilot School, Patuxent River, MD (1973-1974)
- Project Officer and Test Pilot, Strike Aircraft Test Directorate, Patuxent River, MD (1974-1976)
- Flight Instructor, U.S. Naval Test Pilot School, Patuxent River, MD (1976-1977)
- Graduate Student, U.S. Naval Postgraduate School, Monterey, CA (1977-1978)
- Detailed to NASA (1978-1991)
- Retired as Captain (1991)

NASA EXPERIENCE:

NASA Johnson Space Center, Houston, TX (1978-1991)

- Astronaut, Astronaut Office, Flight Crew Operations Directorate (1978-1991)
- Acting Chief of the Astronaut Office, Astronaut Office, Flight Crew Operations Directorate (1989-1990)

NASA Johnson Space Center, Houston, TX (2005-present)

- Center Director (2005-present)

POST-NASA EXPERIENCE:

Loral Space Information Systems, Palo Alto, CA (1991-1996)

- Director of Advanced Programs and Technical Planning (Dates Unknown)
- Vice President, Avionics and Communications Operations (Dates Unknown)

Lockheed Martin Missiles & Space, Sunnyvale, CA (1996-1998)

- Vice President, Civil Space Programs

Lockheed Martin Space Systems (1998-Date Unknown)

- Vice President, Reusable Space Transportation Systems

MISSIONS:

STS 41-D (*Discovery*)

- Crew: Commander Henry W. Hartsfield Jr., Pilot Michael L. Coats, Mission Specialist 1 Judith A. Resnik, Mission Specialist 2 Steven A. Hawley, Mission Specialist 3 Richard M. Mullane, Payload Specialist 1 Charles David Walker
- Launched: 30 August 1984 at 8:41:50 A.M. EDT from Kennedy Space Center, FL
- Duration: 6 days, 0 hours, 56 minutes, 4 seconds
- Landed: 5 September 1984 at 8:37:54 A.M. PDT, Edwards AFB, California
- Mission Highlights: During the maiden flight of *Discovery*, the crew deployed three satellites: Satellite Business Systems' SBS-D, the Hughes-built and Navy-leased SYNCOM IV-2 (also known as the LEASAT-2), and Telesat of Canada's TELESTAR 3C. The 102-foot-tall, 13-foot-wide Office of Application and Space Technology (OAST-1) solar wing was extended from the payload bay to full height several times during the mission. It demonstrated the feasibility of deploying and using large lightweight solar arrays on large facilities in space such as space stations. The payloads onboard included: the Continuous Flow Electrophoresis System (CFES-III), Radiation Monitoring Equipment (RME), Shuttle Student Involvement Program (SSIP) experiments, an IMAX camera being flown for a second time, and the Cloud Logic to Optimize Use of Defense Systems (CLOUDS) Air Force experiment. The crew earned the nickname "Icebusters" for successfully removing hazardous ice particles from the Orbiter using the Remote Manipulator System (RMS).

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. PDT, Edwards AFB, California
- Mission Highlights: The crew deployed Tracking and Data Relay Satellite-4 (TDRS-4 or TDRS-D) attached to an Inertial Upper Stage (IUS), the third component in the TDRS constellation. Other payloads onboard included: Orbiter Experiments Autonomous Supporting Instrumentation System-1 (OASIS-1), Space Station Heat Pipe Advanced Radiator Equipment (SHARE), Protein Crystal Growth (PCG) and Chromosomes and Plant Cell Division (CHROMEX) experiments, two SSIP experiments, an IMAX camera used to photograph the earth, and an Air Force project using the Orbiter as a calibration target for a ground-based experiment at the Air Force Maui Optical Site (AMOS) in Hawaii.

STS-39 (*Discovery*)

- Crew: Michael L. Coats, Pilot L. Blaine Hammond Jr., Mission Specialist 1 Guion S. Bluford Jr., Mission Specialist 2 Gregory J. Harbaugh, Mission Specialist 3 Richard

J. Hieb, Mission Specialist 4 Donald R. McMonagle, Mission Specialist 5 Charles L. Veach

- Launched: 28 April 1991 at 7:33:14 A.M. EDT from Kennedy Space Center, FL
- Duration: 8 days, 7 hours, 22 minutes, 23 seconds
- Landed: 6 May 1991 at 2:55:35 P.M. PDT, Runway 15, Kennedy Space Center, FL
- Mission Highlights: Designated a Department of Defense mission, the first unclassified. Unclassified payloads included Air Force Program-675 (AFP675), Infrared Background Signature Survey (IBSS) with Critical Ionization Velocity (CIV), Chemical Release Observation (CRO), Shuttle Pallet Satellite-II (SPAS-II) experiments, and Space Test Payload-1 (STP-1). Classified payload consisted of Multi-Purpose Release Canister (MPEC). Other payloads onboard included Radiation Monitoring Equipment III (RME III) and Cloud Logic to Optimize Use of Defense Systems-IA (CLOUDS-I). High winds at Edwards Air Force Base in California forced a switch to Kennedy Space Center for landing.

AWARDS & CITATIONS:

- Distinguished Flying Cross (3 times)
- Strike Flight Air Medal (32 times)
- Individual Air Action Medal (3 times)
- Navy Commendation Medal with Combat V (9 times)
- NASA Space Flight Medal (1984, 1989, 1991)
- Defense Superior Service Medal (1985)
- NASA Outstanding Leadership Medal (1989)
- Federation Aeronautique International (FAI) V.M. Komarov Diploma co-recipient (1989)
- Legion of Merit (1991)

REFERENCES:

Chief of Naval Operations to Director, NASA Johnson Space Center, 22 Nov 1991, Michael L. Coats Key Personnel File, Awards Office, NASA Lyndon B. Johnson Space Center, Houston, TX.

Douglas B. Hawthorne, Men and Women of Space (San Diego: Univelt, Incorporated, 1992), 147-148.

"Landing Statement STS-39 (40)," NASA Spacelink Homepage, Online, http://spacelink.nasa.gov/NASA.Projects/Human.Exploration.and.Development.of.Space/Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.040.STS-39/Landing.Statement (Last Updated n.d; Accessed 28 May 2002).

Michael L. Coats NASA Biographical Data Sheet (March 1990), Michael L. Coats Key Personnel File, Awards Office, NASA Lyndon B. Johnson Space Center, Houston, TX.

Michael L. Coats NASA Biographical Data Sheet (July 1999), Johnson Space Center Homepage, Online, http://www.jsc.nasa.gov/Bios/htmlbios/coats-ml.html (Last Updated n.d; Accessed 3 May 2002.

"O'Connor, Coats leave astronaut corps," Space News Roundup (NASA Johnson Space Center), 12 July 1991, 1.

"Shuttle Mission Archive, STS 41-D (12)," Kennedy Space Center Homepage, Online, http://science.ksc.nasa.gov/shuttle/missions/41-d/mission-41-d.html (Last Updated 29 June 2001; Accessed 28 May 2002).

"Shuttle Mission Archive, STS-29 (28)," Kennedy Space Center Homepage, Online, http://science.ksc.nasa.gov/shuttle/missions/sts-29/missions-sts-29.html (Last Updated 29 June 2001; Accessed 28 May 2002).

"Shuttle Mission Archive, STS-39 (40)," Kennedy Space Center Homepage, Online, http://science.ksc.nasa.gov/shuttle/missions/sts-39/missions-sts-39.html (Last Updated 29 June 2001; Accessed 28 May 2002).

"Statement of Michael L. Coats Before the Subcommittee on Space and Aeronautics Committee on Science, October 27, 1999," United States House of Representatives Homepage, Online, http://www.house.gov/science/coats_102799.htm (Last Updated n.d; Accessed 24 May 2002).

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