

# NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

## BIOGRAPHICAL DATA SHEET

**NAME:** Jerry L. Ross

**ORAL HISTORY:** 4 December 2003  
26 January 2004  
5 February 2004

### **EDUCATIONAL BACKGROUND:**

B.S. in Mechanical Engineering, Purdue University, West Lafayette, IN, 1970  
M.S. in Mechanical Engineering, Purdue University, West Lafayette, IN, 1972

### **PRE-NASA EXPERIENCE:**

United States Air Force (1966-2000)

- Air Force ROTC, Purdue University, West Lafayette, IN (1966-1970)
- Graduate student, Purdue University, West Lafayette, IN (1970-1972)
- Ramjet Engine Division, Air Force Aero-Propulsion Laboratory, Wright-Patterson Air Force Base (AFB), OH (1972-1974)
- Laboratory Executive Officer and Chief of Management Operations Office, Wright-Patterson AFB, OH (1974-1975)
- Student, Flight Test Engineer Course, USAF Test Pilot School (1975-1976)
- Flight Test Engineering Directorate, 6510<sup>th</sup> Test Wing, Edwards AFB, CA (1976-1979)
- Detailed to NASA (1979-2000)
- Retired as Colonel (2000)

### **NASA EXPERIENCE:**

NASA Lyndon B. Johnson Space Center, Houston, TX (1979-present)

- Payload Officer/Flight Controller, Payloads Operations Division (1979-1980)
- Astronaut, Astronaut Office, Flight Crew Operations Directorate (1980-present)

### **MISSIONS:**

STS 61-B (*Atlantis*)

- Crew: Commander Brewster H. Shaw, Jr., Pilot Bryan D. O'Connor, Mission Specialist 1 Mary L. Cleave, Mission Specialist 2 Sherwood C. Spring, Mission Specialist 3 Jerry L. Ross, Payload Specialist 1 Rodolfo Neri Vela, Payload Specialist 2 Charles D. Walker
- Launched: 26 November 1985 at 7:29:00 P.M. EST from Kennedy Space Center, FL
- Duration: 6 days, 21 hours, 4 minutes, 49 seconds
- Landed: 3 December 1985 at 1:33:49 P.M. PST Edwards AFB, California
- Mission Highlights: STS 61-A deployed three communications satellites: Mexico's MORE LOS-B, Australia's AUSSAT-2, and RCA Americom's SATCOM KU-2.

The crew also conducted two experiments designed to test the feasibility of assembling structures in space: the Experimental Assembly of Structures in Extravehicular Activity (EASE) and Assembly Concept for Construction of Erectable Space Structures (ACCESS). Ross and Spring conducted two EVAs as part of the EASE/ACCESS experiments.

#### STS-27 (*Atlantis*)

- Crew: Commander Robert L. “Hoot” Gibson, Pilot Guy S. Gardner, Mission Specialist 1 Richard M. Mullane, Mission Specialist 2 Jerry L. Ross, Mission Specialist 3 William M. Shepherd
- Launched: 2 December 1988 at 9:30:34 A.M. EST from Kennedy Space Center, FL
- Duration: 105 hours, 5 minutes, 35 seconds
- Landed: 6 December 1988 at 3:36:11 P.M. PST, Edwards AFB, California
- Mission Highlights: STS-27 was a dedicated Department of Defense (DOD) mission.

#### STS-37 (*Atlantis*)

- Crew: Commander Steven R. Nagel, Pilot Kenneth D. Cameron, Mission Specialist 1 Jerry L. Ross, Mission Specialist 2 Jay Apt, Mission Specialist 3 Linda M. Godwin
  - Launched: 5 April 1991 at 9:22:44 A.M. EST from Kennedy Space Center, FL
  - Duration: 5 days, 23 hours, 32 minutes, 44 seconds
  - Landed: 11 April 1991 at 6:55:29 A.M. PDT, Edwards AFB, California
- Mission Highlights: The primary payload of STS-37 was the Gamma Ray Observatory (GRO). The GRO housed a Compton telescope and several experiments that measured data on gamma rays, which are energy radiations in the electromagnetic spectrum. The crew deployed the GRO on day three, but the antenna failed to deploy. Ross and Apt conducted a contingency spacewalk and deployed the antenna manually. The next day, Ross and Apt performed a planned EVA, the first scheduled spacewalk since November 1985. The EVA tested hardware to be used in building and maintaining the proposed Space Station *Freedom*.

#### STS-55 (*Columbia*)

- Crew: Commander Steven R. Nagel, Pilot Terence T. Henricks, Mission Specialist 1 Jerry L. Ross, Mission Specialist 2 Charles J. Precourt, Mission Specialist 3 Bernard A. Harris, Jr., Payload Specialist 1 Ulrich Walter, Payload Specialist 2 Hans Schelgel
- Launched: 26 April 1993 at 10:50:00 A.M. EDT from Kennedy Space Center, FL
- Duration: 9 days, 23 hours, 39 minutes, 59 seconds
- Landed: 6 May 1993 at 10:30:00 A.M. PDT, Edwards AFB, California
- Mission Highlights: STS-55 was the second German Spacelab mission, or D-2, which housed eighty-eight scientific experiments. The German Space Agency (DARA) controlled the mission via the German Aerospace Research Establishment (DLR). NASA, the European Space Agency (ESA), and Japan also contributed to the experiments.

STS-74 (*Atlantis*)

- Commander Kenneth D. Cameron, Pilot James D. Halsell, Mission Specialist 1 Jerry L. Ross, Mission Specialist 2 William S. McArthur, Jr., Mission Specialist 3 Chris A. Hadfield
- Launched: 12 November 1995 at 7:30:43 A.M. EST from Kennedy Space Center, FL
- Duration: 8 days, 4 hours, 31 minutes, 42 seconds
- Landed: 20 November 1995 at 12:01:27 P.M. EST, Kennedy Space Center, FL
- Mission Highlights: This was the second Space Shuttle *Mir* to dock with the Russian space station *Mir*. The crew attached a permanent docking module to *Mir* and transferred supplies to the space station.

STS-88 (*Endeavour*)

- Crew: Commander Robert D. Cabana, Pilot Frederick W. Sturckow, Mission Specialist Nancy J. Currie, Mission Specialist Jerry L. Ross, Mission Specialist James H. Newman, Mission Specialist Sergei K. Krikalev (Russia)
- Launched: 4 December 1998 at 3:35:34 A.M. EST from Kennedy Space Center, FL
- Duration: 11 days, 19 hours, 18 minutes, 47 seconds
- Landed: 15 December 1998 at 10:53 P.M. EST, Kennedy Space Center, FL
- Mission Highlights: STS-88 was the first International Space Station (ISS) assembly mission. The objective was to carry the Unity module and mate it with the already-orbiting Russian Zarya module. Ross conducted three EVAs in the process of connecting the modules. STS-88 also deployed two satellites.

STS-110 (*Atlantis*)

- Crew: Commander Michael J. Bloomfield, Pilot Stephen N. Frick, Mission Specialist Jerry L. Ross, Mission Specialist Steven L. Smith, Mission Specialist Ellen Ochoa, Mission Specialist Lee M.E. Morin, Mission Specialist Rex J. Walheim
- Launched: 8 April 2002 at 4:44:19 P.M. EDT from Kennedy Space Center, FL
- Duration: 10 days, 19 hours, 43 minutes, 48 seconds
- Landed: 19 April 2002 at 12:27 A.M. EDT, Kennedy Space Center, FL
- Mission Highlights: This ISS assembly crew installed a forty-three foot truss, the Starboard 0 (S-Zero). The crew performed four spacewalks in the process of installing the truss, which was the first of nine framework pieces of the ISS. The crew also outfitted the truss for future connections and EVAs and added the Mobile Transporter, essentially a railroad-like track along the structure. Astronaut Ross became the first astronaut to go into space seven times. The mission was also the first to involve using the RMS to maneuver astronauts around the ISS.

**AWARDS & CITATIONS:**

- Defense Superior Service Medal with one Oak Leaf
- Air Force Legion of Merit
- Defense Meritorious Service Medal with Three Oak Leaf Clusters
- Air Force Meritorious Service Medal with One Oak Leaf
- Air Force Outstanding Unit Award with Two Oak Leaf Clusters
- National Defense Service Medal
- Air Force Longevity Service Award Ribbon with One Oak Leaf Cluster
- Small Arms Expert Marksmanship Ribbon
- USAF Test Pilot School Distinguished Graduate
- USAF Test Pilot School Outstanding Flight Test Engineer Award, Class 75B
- Fifteen NASA Medals
- Honorary Doctor of Science, Purdue University
- Air Force Systems command's Technical Achievement Award, 1974
- Air Force System Command's Scientific Achievement Award, 1974
- Air Force Aero-Propulsion Laboratory's Junior Officer of the Year, 1974
- Victor A. Prather Award, American Astronautical Society, 1985, 1990, 1999
- Flight Achievement Award, 1992, 1996, 1999, 2002

**SELECT PUBLICATIONS & PATENTS:**

C. F. Warner, et al., "Studies of Slurry Fueled Propulsion Systems," AD-740123 (West Lafayette, IN: Purdue University, 1972.)

Ross, J. L., "A Fuel Data Standardization Study for JP-4, JP-5, JP-7, and RJ-5 Combusted in Air," AD-783308 (OH: Wright-Patterson AFB, 1974).

Heard, W. L., et al., "Results of the ACCESS Space Construction Shuttle Flight Experiment," AIAA PAPER 86-1186 (Houston: NASA Lyndon B. Johnson Space Center, 1986).

**REFERENCES:**

Douglas B. Hawthorne, Men and Women of Space (San Diego: Univelt, 1992), 600-602.

Jerry L. Ross NASA Biographical Data Sheet, Astronaut Biographies Homepage, Online, <http://www.jsc.nasa.gov/Bios/htmlbios/ross.html> (Sheet Last Updated April 2002; Accessed 10 July 2002).

"61-B," NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/61-b/mission-61-b.html> (Last Updated 29 June 2001; Accessed 18 July 2002).

"STS-88," NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-88/mission-sts-88.html> (Last Updated 29 June 2001; Accessed 18 July 2002).

“STS-88,” NASA Human Spaceflight Homepage, Online, <http://spaceflight.nasa.gov/shuttle/archives/sts-88/> (Last Updated 24 April 2002; Accessed 24 July 2002).

“STS-55,” NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-55/mission-sts-55.html> (Last Updated 29 June 2001; Accessed 18 July 2002).

“STS-110,” NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-110/mission-sts-110.html> (Last Updated 7 May 2002; Accessed 18 July 2002).

“STS-110,” NASA Human Spaceflight Homepage, Online, <http://spaceflight.nasa.gov/shuttle/archives/sts-110/> (Last Updated 10 July 2002; 24 July 2002).

“STS-74,” NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-77/mission-sts-77.html> (Last Updated 29 June 2001; Accessed 18 July 2002).

“STS-37,” NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-37/mission-sts-37.html> (Last Updated 29 June 2001; Accessed 24 July 2002).

“STS-27,” NASA Historical Archive for Manned Missions Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-27/mission-sts-27.html> (Last Updated 29 June 2001; Accessed 18 July 2002).

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