

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

BIOGRAPHICAL DATA SHEET

NAME: Richard O. "Dick" Covey

ORAL HISTORY: 1 November 2006
15 November 2006
7 February 2007
28 March 2007

EDUCATIONAL BACKGROUND:

B.S. in Engineering Science, United States Air Force Academy, Colorado Springs, CO, 1968
M.S. in Aeronautics and Astronautics, Purdue University, West Lafayette, IN, 1969
Squadron Officer School, (Maxwell Air Force Base, AL,) 1974
Air Force Test Pilot School (Class 74-B), Edwards Air Force Base, CA, 1975
Air Command and Staff College (by correspondence), (Maxwell, Air Force Base, AL), 1978

PRE-NASA EXPERIENCE:

United States Air Force (1964-1994)

- Pilot, 426th Tactical Fighter Training Squadron, Luke Air Force Base, AZ (1970)
- Pilot, 8th Special Operations Squadron, Bien Hoa Air Base, South Vietnam (1971-1972)
- Pilot, 74th Tactical Fighter Squadron, England Air Force Base, LA (1972-1974)
- Pilot, 74th Tactical Fighter Squadron, Korat Air Base, Thailand (1973)
- Test Pilot, 3246th Test Wing, Armament Development and Test Center, Eglin Air Force Base, FL (1975-1976)
- Director, F-15 Tactical Electronic Warfare Systems Joint Test Force (Detachment 2), Eglin Air Force Base, FL (1977-1978)
- Detailed to NASA (1978-1994)
- Retired as Colonel (1994)

NASA EXPERIENCE:

NASA Lyndon B. Johnson Space Center, Houston, TX (1978-1994)

- Astronaut, Astronaut Office, Flight Crew Operations Directorate (1978-1994)
- Deputy Chief (Acting), Astronaut Office, Flight Crew Operations Directorate (1991)
- Acting Director, Flight Crew Operations Directorate (1991-1992)

POST-NASA EXPERIENCE:

Space Industries International, Houston, TX (1994-1995)

- Director of Business Development, Calspan Services Contracts Division, (1994-1995)

McDonnell Douglas Aerospace, Houston, TX (1996-1997)

- Division Director, Houston Operations (1996-1997)

The Boeing Company, Houston, TX (1997-2000)

- Vice-President, Houston Operations (1997-2000)
Boeing Service Company, Colorado Springs, CO (2000-2006)
- Vice-President, Support Operations (2000-2004)
- President, Boeing Service Company (2005-2006)
United Space Alliance, Houston, TX (2006-present)
- Executive Vice-President and Chief Operating Officer, (2006-present)

MISSIONS:STS 51-I (*Discovery*)

- Crew: Commander Joe H. Engle, Pilot Richard O. Covey, Mission Specialist 1 James D. A. van Hoften, Mission Specialist 2 John M. Lounge, Mission Specialist 3 William F. Fisher
- Launched: 27 August 1985 at 6:58 A.M. EDT from Kennedy Space Center, FL
- Duration: 7 days, 2 hours, 18 minutes, 42 seconds
- Landed: 3 September 1985 at 6:16 A.M. PDT, Edwards AFB, California
- Mission Highlights: On Day One the crew deployed two communications satellites: AUSSAT-1, owned by Australia, and ASC-1, owned by the American Satellite Company. On Day Three, they deployed the SYNCOM IV-4 (also known as LEASAT-4) owned by Hughes Communications Services and leased to the United States Navy. On Day Five, the *Discovery* rendezvoused with the malfunctioning SYNCOM IV-3 satellite, which had been deployed by STS 51-D. Van Hoften and Fisher conducted the second on-orbit repair of a satellite during two EVAs. The repairs involved the first manual grapple and deployment of a satellite by a spacewalking crewman. The crew also performed a materials processing mid-deck experiment, the Physical Vapor Transport of Organic Solids (PVTOS).

STS-26 (*Discovery*)

- Crew: Commander Frederick H. Hauck, Pilot Richard O. Covey, Mission Specialist 1 John M. Lounge, Mission Specialist 2 George D. Nelson, Mission Specialist 3 David C. Hilmers
- Launched: 29 September 1988 at 11:37:00 A.M. EDT from Kennedy Space Center, FL
- Duration: 4 days, 1 hour, 0 minutes, 11 seconds
- Landed: 3 October 1988 at 9:37:11 A.M. PDT, Edwards AFB, California
- Mission Highlights: STS-26 marked the return-to-flight mission after the STS 51-L tragedy. The crew deployed a Tracking and Data Relay Satellite (TDRS) and conducted various experiments, including a Protein Crystal Growth experiment, two Shuttle Student Involvement Projects (SSIP) involving grain formation and crystal growth, Infrared Communications Flight Experiment (IRCFE), Aggregation of Red Blood Cells (ARC), Isolelectric Focusing Experiment (IFE), Mesoscale Lightning Experiment (MLE), Phase Partitioning Experiment (PPE), and an Earth-Limb Radiance Experiment (MLE). The crew deployed a Ku-band antenna in the payload bay, but its telemetry was faulty. The crew tested new partial-pressure flights suits and assessed the new crew escape system. When the Flash Evaporator system iced up after ascent, the crew cabin temperature reached 87 degrees Fahrenheit.

STS-38 (*Atlantis*)

- Crew: Commander Richard O. Covey, Pilot Frank L. Culbertson, Jr., Mission Specialist 1 Robert C. Springer, Mission Specialist 2 Carl J. Meade, Mission Specialist 3 Charles D. Gemar
- Launched: 15 November 1990 at 6:48:13 P.M. EST from Kennedy Space Center, FL
- Duration: 4 Days, 21 hours, 54 minutes, 31 seconds
- Landed: 20 November 1990 at 4:42:42 P.M. EST, Kennedy Space Center, FL
- Mission Highlights: STS-38 was the seventh mission dedicated to the Department of Defense. After various launch delays including a leak in the external tank umbilical, hail damage from a thunderstorm, and payload problems, the July mission finally flew in November with a night launch from the Kennedy Space Center. The classified DOD payload was an Air Force Project – 658 advanced data relay satellite. In addition to the DOD payload, the *Atlantis* crew performed life sciences experiments on themselves. These biomedical Detailed Supplementary Objectives included testing space motion sickness, cardiovascular deconditioning, muscle loss, changes in coordination and balance, radiation exposure, and other changes in the body's biochemistry.

STS-61 (*Endeavour*)

- Crew: Commander Richard O. Covey, Pilot Kenneth D. Bowersox, Mission Specialist 1 Kathryn C. Thornton, Mission Specialist 2 Claude Nicollier, Mission Specialist 3 Jeffrey A. Hoffman, Mission Specialist 4 F. Story Musgrave, Mission Specialist 5 Tom Akers
- Launched: 2 December 1993 at 4:27 A.M EST from Kennedy Space Center, FL
- Duration: 10 Days, 19 hours, 58 minutes, 37 seconds
- Landing: 13 December 1993 at 12:26:25 A.M EST, Kennedy Space Center, FL
- Mission Highlights: STS-61 marked the first Hubble Space Telescope servicing mission and Covey's second night launch. Its three main objectives included the restoration of the telescope's scientific capabilities, the restoration of the Hubble's systems, and the validation of the on-orbit servicing capability. This highly sophisticated and busy mission included alternating EVAs by two two-member teams. *Endeavour* rendezvoused with the Hubble Space Telescope and Nicollier used the Remote Manipulator System to capture it and place it in the cargo bay. Over five spacewalks, both EVA teams accomplished all the primary mission objectives, including replacing gyroscope pairs #2 and #3, installing the Wide Field/Planetary Camera II, setting up the Corrective Optics Space Telescope Axial Replacement device, exchanging two solar arrays, changing a magnetometer, and switching the solar array drive electronics. Crewmen also accomplished the secondary mission objectives, including the deployment of the Goddard High Resolution Spectrometer Redundancy Kit, the DF-224 coprocessor, a second magnetometer, fuse plugs for the gyroscopes, an electronic control unit for gyroscope pair #1, and a reboost of the telescope. Nicollier successfully released the Hubble on Day Nine.

AWARDS & CITATIONS:

- Air Force Legion of Merit
- Air Force Distinguished Flying Cross (5)
- Air Medal (16)
- Air Force Meritorious Service Medal
- Air Force Commendation Medal
- Department of Defense Distinguished Service Medal (2)
- Department of Defense Superior Service Medal
- Johnson Space Center Certificate of Commendation
- NASA Outstanding Leadership Medal
- NASA Exceptional Service Medal
- NASA Distinguished Service Medal
- NASA Distinguished Public Service Medal
- NASA Spaceflight Medal (4)
- National Intelligence Medal of Achievement
- Liethan-Tittle Award, Outstanding Graduate of United States Air Force Test Pilot School Class 74-B, 1975
- American Institute of Aeronautics and Astronautics Haley Space Flight Award, 1988 (or 1989)
- American Astronautical Society Flight Achievement Award, 1988
- Robert J. Collier Trophy (Crew STS-61), 1993
- Yuri Gagarin Gold Medal, 1993
- The Goddard Trophy (Crew STS-61), 1994
- Arkansas Aviation Hall of Fame, 1995
- Astronaut Hall of Fame, 2004
- Fellow, Society of Experimental Test Pilots
- Fellow, American Institute of Aeronautics and Astronautics

REFERENCES:

Michael Cassut, Who's Who in Space: The First 25 Years (Boston: G.K. Hall & Co., 1987).

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

Johnson Space Center News Release, "Space Shuttle Mission 51-I Press Kit," 85-118, (August 1985), Public Affairs Office, NASA Lyndon B. Johnson Space Center, Houston, TX.

Lyndon B. Johnson Space Center Telephone Directory (1991), Organization Files, Center Series, History Collection, Scientific and Technical Information Center, NASA Lyndon B. Johnson Space Center, Houston, TX.

Lyndon B. Johnson Space Center Telephone Directory (1992), Organization Files, Center Series, History Collection, Scientific and Technical Information Center, NASA Lyndon B. Johnson Space Center, Houston, TX.

“Mission Information, STS-38,” Johnson Space Center Homepage, Online, http://lsda.jsc.nasa.gov/scripts/cf/miss.cfm?mis_index=122&string= (Last Updated 20 October 2000; Accessed 11 June 2002).

“Mission Summary, STS-26,” NASA Spacelink Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human/Exploration.and.Development.of.Space./Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.026.STS-26/Mission.Summary> (Last Updated n.d.; Accessed 24 May 2002).

“Mission Summary, STS 51-I,” NASA Spacelink Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human/Exploration.and.Development.of.Space./Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.021.STS-51-J/STS-51-I/Mission.Summary> (Last Updated n.d.; Accessed 31 May 2002).

NASA News Release, “Astronauts Named to Two DOD Missions Scheduled for 1990,” 89-71, NASA Spacelink Homepage, Online, <http://spacelink.nasa.gov/NASA.News/NASA.News.Releases/Previous.News.Releases/89.News.Releases/89-05.News.Releases/89-05-11> (Last Updated n.d.; Accessed 12 June 2002).

NASA News Release, “Shuttle Astronaut Richard Covey to Leave NASA, Air Force,” 94-044, NASA Johnson Space Center Homepage, Online, <http://www.jsc.nasa.gov/pao/media/rel/Past-News-releases-93-94-95/94-044.DOC.html> (Last Updated n.d.; Accessed 12 June 2002).

Picture caption, Space News Roundup (NASA Lyndon B. Johnson Space Center) 8 May 1998, 2.

“Richard Covey,” Arkansas Air Museum Homepage, Online, <http://www.arkairmuseum.org/covey.html> (Last Updated n.d.; Accessed 12 June 2002).

Richard O. Covey Biographical Data Sheet (August 1994), Johnson Space Center Homepage, Online, <http://www.jsc.nasa.gov/Bios/htmlbios/covey-ro.html> (Last Updated n.d.; Accessed 3 May 2002)

“STS-26,” Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-26/mission-sts-26.html> (Last Updated 29 June 2001; Accessed 24 May 2002).

“STS-38,” Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-38/mission-sts-38.html> (Last Updated 29 June 2001; Accessed 11 June 2002).

“STS 51-I,” Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/51-i/mission-51-i.html> (Last Updated 29 June 2001; Accessed 12 June 2002).

“STS-61,” Kennedy Space Center Homepage, Online, <http://science.ksc.nasa.gov/shuttle/missions/sts-61/mission-sts-61.html> (Last Updated 29 June 2001; Accessed 12 June 2002).

“STS-61 Mission Control Center Status Reports,” NASA Spacelink Homepage, Online, <http://spacelink.nasa.gov/NASA.Projects/Human.Exploration.and.Development.of.Space/Human.Space.Flight/Shuttle/Shuttle.Missions/Flight.059.STS-61/MCC.Status.Reports> (Last Updated n.d; Accessed 31 May 2002).

BIOGRAPHICAL DATA SHEET CREATED: 26 JUNE 2002