

ROBERT J.WREN
BIOGRAPHICAL DATA SHEET
March 20, 2012

NAME: Robert J. Wren

Birth Date: May 12, 1935

Birth Place: Moline, Illinois, U.S.A.

Marital Status: Married, Spouse Jordis

Children: James 54; Pat 44; and Kiley42

EDUCATIONAL BACKGROUND

- Bachelor's of Science in Civil Engineering, University of Texas, Austin, TX 1956
- Master's of Science in Civil Engineering, Southern Methodist University, Dallas, TX 1962
- Ph.D. Candidate in Engineering, University of Houston, TX, 1963-1966

PROFESSIONAL

- Registered Professional Engineer, State of Texas 1956
- U.S. Bureau of Reclamation, 1956-1962 (Hydrology Engineer)
- General Dynamics, Fort Worth, Texas 1957-1962 (Structural Test Engineer)
- NASA Johnson Space Center, Houston, Texas 1962-2000
- United Space Alliance, Houston, Texas 2000-2003
- Consultant 2003 to present

NASA EXPERIENCE

NASA Manned Spacecraft Center/Lyndon B. Johnson Space Center, Houston, TX (1962-2000)

- Senior Structural Dynamics Engineer and Manager of Vibration and Acoustic Test Facility (1962-1968)
- Manager for Apollo S/C 2TV-1 CSM Test Program (1968)
- Manager for Apollo LM-2 Drop Test Program (1968-1969)
- Manager for Structural Design (Saturn-Lifted and Shuttle-Lifted Space Station) (1969-1975)
- Manager for Structural Design and Development (747 modification) (1975-1977)
- Structural Division Manager for Shuttle Payload Systems (1972-1984)
- Manager for Vehicle & Payload System Safety (Shuttle & Space Station Freedom) (1984-1995)
- Engineering Directorate Manager for Vehicle and Payload System Safety (Shuttle & International Space Station) (1995-2000)
- Member of Shuttle Payload Safety Review Panel
- Member of Station Safety Review Panel representing the Engineering Directorate

CAREER HIGH-POINTS

- Apollo S/C 2 TV-1 CSM Test Program constraint on Apollo 8
- Apollo S/C LM-2 Drop Test Program constraint on Apollo 11
- The people that I have had the good fortune and pleasure to have known, worked with, been associated with, and learned from

MOST IMPORTANT APOLLO MISSIONS

- Apollo 8 – Demonstrated capability to fly to the moon and return safely – gusty call- lunar module not ready yet – flew mission without lunar module. Service module had only a single engine. A failure would mean no return capability. HIGH LEVEL TECHNICAL ACHIEVEMENT – also spiritually

uplifting. The crew – Borman, Lovell, Anders – read from the Book of Genesis as they went around the moon at Christmas, 1968.

- Apollo 11 – Made lunar landing, met JFK's goal (before end of decade) – first to set foot on another heavenly body, July 1969.

MOST IMPORTANT ACHIEVEMENT TO-DATE OF SPACE PROGRAM

Left the gravitational influence of the Earth and entered the gravitational influence of another heavenly body (the Moon), turned around and saw our Earth from another viewpoint – a beautiful blue/green/white globe enveiled in an extremely thin and fragile atmosphere.

New and different viewpoints can be deeply enriching to our understanding of what is going on – a whole new perspective.

Similar to viewing the countryside at ground level (two-dimensional) and taking off on a flight and viewing the same area from above (three-dimensional) – broadens one's perspective and understanding of the total picture of how things are.

POST-NASA EXPERIENCE

- United Space Alliance, Houston, TX (2000-2003)
- Director of Safety and Mission Assurance, International Space Station Program Office (2000-2003)
- Johnson Space Center Oral History Project Robert J. Wren

AEROSPACE PROGRAM EXPERIENCE

B-36, B-57, B-58, Atlas, Centaur, Gemini, Apollo, Skylab, ASTP, Space Station, Space Base, Mars Mission Vehicle, Lunar Base, STS Shuttle, Orbiter, Cargo Integration, Payload Safety, and Systems Engineering and Integration

AWARDS & CITATIONS

- Sustained Superior Performance Award, 1966
- MSC's nominee for the Texas Society of Professional Engineers' Junior Engineer of the Year Award, 1966
- Quality Step Increase Award, 1969
- MSC Superior Achievement Award, 1969
- Group Achievement Award, 1987, 1996
- Outstanding Performance Rating, 1992
- Certificate of Commendation, 1995
- Performance Award, 1994, 1995, 1996, 1997, 1998
- Who's Who in Aviation, Science and Engineering, The Southwest, America, The World

SELECT PUBLICATIONS

- R. J. Wren, W. D. Dorland, and K. M. Eldred, "Development of Acoustic Test Conditions for Apollo Lunar Module Flight Certification," NRL: The Shock and Vibration Bulletin 37 (January 1968): 139 – 152.
- R. J. Wren, W. D. Dorland, and K. M. Eldred, "Concept, Design, and Performance of the Spacecraft Acoustic Laboratory," NRL: The Shock and Vibration Bulletin 37 (January 1968): 25 - 54.
- R. J. Wren, et al., "Concept, Design, and Performance of the MSC Spacecraft Acoustic Laboratory," NASA-TM-X-58017 (Houston: NASA Manned Spacecraft Center, 1968).

- R. J. Wren, et al., "Development of Acoustic Test Conditions for Apollo Lunar Module Flight Qualification," NASA-TM-X-58016 (Houston: NASA Manned Spacecraft Center, 1968).

REFERENCES

- "E & D Employees Recognized for Apollo Testing," Roundup (NASA Manned Spacecraft Center, Houston, TX), 6 January 1967, 8.
- "Employees Earn Certificate of Commendation," Space News Roundup (NASA Lyndon B. Johnson Space Center, Houston, TX), 4 August 1995.
- "Looking Forward while Looking Back," Roundup (NASA Manned Spacecraft Center, Houston, TX), 31 October 1969, 1, 4.
- NASA Johnson Space Center Telephone Directory (1973-1998), Organization Files, Center Series, JSC History Collection, University of Houston-Clear Lake, University Archives, Houston, TX.
- NASA Manned Spacecraft Center Telephone Directory (1962-1973), Organization Files, Center Series, JSC History Collection, University of Houston-Clear Lake, University Archives, Houston, TX.
- "Retirements," Space News Roundup (NASA Lyndon B. Johnson Space Center, Houston, Texas), 14 July 2000, 8.
- R. J. Wren, et al., "Concept, Design, and Performance of the MSC Spacecraft Acoustic Laboratory," NASA-TM-X-58017 (Houston: NASA Manned Spacecraft Center, 1968).
- R. J. Wren, et al., "Development of Acoustic Test Conditions for Apollo Lunar Module Flight Qualification," NASA-TM-X-58016 (Houston: NASA Manned Spacecraft Center, 1968).
- R. J. Wren, W. D. Dorland, and K. M. Eldred, "Development of Acoustic Test Conditions for Apollo Lunar Module Flight Certification," NRL: The Shock and Vibration Bulletin 37 (January 1968): 139 – 152.
- R. J. Wren, W. D. Dorland, and K. M. Eldred, "Concept, Design, and Performance of the Spacecraft Acoustic Laboratory," NRL: The Shock and Vibration Bulletin 37 (January 1968): 25 - 54.
- Robert J. Wren Service Record Card, Robert J. Wren Personnel File, Human Resources Office, NASA Lyndon B.

CIVIC ACTIVITIES

- Member, Zoning Board of Adjustments, City of Nassau Bay,
- Coach, Friendswood Youth Soccer Club,
- Coach, Friendswood Little Dribblers Basketball Club,
- Friendswood Little League Baseball,
- President, Friendswood Little League Baseball, 1980, 1981, and 1982
- Member, Friendswood United Methodist Church - Member of Finance Committee, and Administrative Board Member
- Member, Clear Lake Area Chamber of Commerce, Chairman, Highway and Transportation Committee, 1984
- Board Member, Bay Area YMCA, 1980-2007, Building and Grounds Committee Chairman, New Facility Chairman, and Chairman of the Board, 1983-1984

Member, Space Center Rotary Club, 1976-present

- Director, Community Service A, 1979-1982
- Chairman, Youth Committee, 1978-79, and 1979-80
- Board of Directors, 1980-82
- Treasurer, 1982-1983
- Secretary, 1983-1984

- Vice President, 1984-1985
- President, 1985-1986 (185 members)

Rotary District 589 (Greater Houston Area with over 4,000 members)

- Governor's Representative 1986-1989
- Area Coordinator, Governor's Representative's 1987-1988
- Governor's Zone Leader for Polio Plus, 1987-1988
- Chairman of District Assembly, 1987-1988, 1989-1990
- Conducted President Elect Workshop (Predecessor to President Elect Training Seminar) Conference, large clubs instructor, 1987-88
- Governor's nomination committee, 1988-89
- Deputy District Governor (Lieutenant), 1989-1990
- District Finance Committee 1993-94, 1994-1995, and 1995-1996

Foundation and Endowment Affiliations

- One of the Founders of Rotary National Award for Space Achievement (RNASA) Foundation - National Space Trophy Award and Dinner annual event.
- Director of RNASA 1985 to present
- One of the Founders of Rotary World Health Foundation - plastic surgery for children of third world countries
- One of the Founders of Rotary Space Memorial Foundation - to honor space flight crews
- One of the founders of Space Center Rotary Club Endowment Foundation, Chairman of Trustees and President, 2000 to present