

# NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

## BIOGRAPHICAL DATA SHEET

**NAME:** Richard Smith Johnston

**ORAL HISTORY:** 11 August 1998  
2 September 1998  
3 November 1998  
2 December 1998

**EDUCATIONAL BACKGROUND:**

B.S. in Chemistry, University of Maryland, 1952

**PRE-NASA CAREER:**

Research Chemist, United States Naval Research Laboratory, Washington, DC (1946-1955)

Project Engineer, United States Navy Bureau of Aeronautics, Washington, DC (1955-1959)

**NASA CAREER:**

NASA Space Task Group, NASA Langley Field, Virginia (1959-1963)

Project Mercury Life Support Systems Engineer

NASA Manned Spacecraft Center, Houston, Texas (1963-1972)

Chief, Crew Systems Division (1963-1968)

Special Assistant to the Director (October 1968-May 1969)

Manager, Lunar Receiving Laboratory (May 1969-October 1969)

Manager, Apollo Lunar Experiment Program Office (October 1969-November 1970)

Deputy Director, Medical Research and Operations (1970-1972)

NASA Johnson Space Center, Houston, Texas (1972-1979)

Director of Life Sciences (November 1972-January 1975)

*[brief leave of absence]*

Director of Space and Life Sciences (October 1976 -December 1979)

**POST-NASA CAREER:**

Assistant to President and Director of Engineering, Bunker Ramo Corporation, Oakbrook, Illinois (January 1975- October 1976)\*

Special Assistant to President for Development and Director of Office of Scientific and Technology Development, The University of Texas Health Science Center, Houston, Texas (1980-1981)

Executive Director, Office of Institutional Planning and Development, The University of Texas Health Science Center, Houston, Texas (January 1981- September 1982)

Vice President, Program Development, Texas Medical Center, Inc., Houston, Texas (September 1982- date unknown)

**CURRENT OCCUPATION:** Medical Center Executive; Author

**PROFESSIONAL & HONORARY SOCIETIES:**

- Member/Associate Fellow, Aerospace Medical Association
- Fellow, American Astronautical Society (AAS)
- Member/Associate Fellow, American Institute of Aeronautics and Astronautics (AIAA)
- Member, International Academy of Astronautics
- Member, Bioastronautics Committee of the International Academy of Astronautics
- Member, COSMOS Club
- Director, American Astronautical Society (1977-1980)

**AWARDS & CITATIONS:**

- American Astronautical Society's Victor A. Prather Award, 1966
- NASA Exceptional Service Medal, 1968
- NASA Exceptional Service Medal, 1969
- Presidential Medal of Freedom (received as a member of the Apollo 13 Mission Operations Team), 1970
- American Institute of Aeronautics and Astronautics (AIAA) John Jeffries Award, 1971
- NASA Distinguished Service Medal (NASA's highest award), 1973
- University of Maryland's Distinguished Citizen Award, 1976
- AIAA Aerospace Contribution to Society Award, 1979
- Who's Who In America, 1975-1985
- Commencement Speaker, Parks College, Cahokia, Illinois, July 1972
- Commencement Speaker, Prince George's Community College, May 1975
- Keynote Speaker for 9<sup>th</sup> Annual Intersociety on Environmental Sciences, San Francisco, CA, July 1979

**GROUP AWARDS:**

- Project Mercury Group, 1965
- Gemini IV Extravehicular Activity Development Team, 1967
- Gemini Lightweight Suit Group, 1968
- Apollo Flammability and Materials Test Team, 1969
- Lunar Orbit Experiments Team, 1972
- Skylab Medical Experiments Altitude Test Team; Nonflammable Materials Development Team; Skylab Real-time Planning Team; and Lunar Science Team, 1973
- Skylab Medical Operations Team, 1974

**SELECT PUBLICATIONS:**

- Henry, J. P., R. S. Johnston, et al., "On the Effect of Weightlessness in Ballistic and Orbital Flight." Aerospace Medicine, Vol. 33 pp. 1056-1068, September 1962.
- Johnston R. S., et al., "Project Mercury Astronaut Preparation and Activities Manual for Mercury Redstone Mission No. 3 (MR-3)." NASA Project Mercury Working Paper 174, 6 February 1961.
- Johnston, R. S. and W. E. Hull. "Apollo Missions." R. S. Johnston, et al, "The Lunar Quarantine Program." Biomedical Results of Apollo, edited by R. S. Johnston, C. A. Berry, M.D., and L. F. Dietlein, M.D., Washington, DC, 1975.
- Johnston, R. S., "Apollo Human Factors." Proceeding of NASA Industry Conference, Washington, D.C., August 1960.
- Johnston, R. S., "Apollo." Encyclopedia Britannica Science Yearbook, 1969.
- Johnston, R. S., "Bioengineering." NASA-University Conference on the Science and Technology of Space Exploration, 18 December 1962.
- Johnston, R. S., "Combustion Safety in Spacecraft Environment." Aerospace Medicine 40 (11) pp. 1197-1202, November 1969.
- Johnston, R. S., "Fire Safety in Manned Spacecraft." Fire Safety Symposium, Coronado, California, April 1969
- Johnston, R. S., "Manned Space Exploration." Encyclopedia Britannica Science Yearbook, 1970.
- Johnston, R. S., "Manned Space Exploration". Encyclopedia Britannica Science Yearbook, 1972.
- Johnston, R. S., "Manned Space Exploration." Encyclopedia Britannica Science Yearbook, 1973.
- Johnston, R. S., "Manned Space Exploration." Encyclopedia Britannica Science Yearbook, 1974.
- Johnston, R. S., "Manned Space Flight Space Suit Development Program." Presented To Pressure Suit Symposium, Franborough, England, May 1962.
- Johnston, R. S., "Mercury Life Support Experience." Presented to Apollo Industry Conference, August 1961.

- Johnston, R. S., "Mercury Life Support Systems." Proceedings of Institute of Astronautical Sciences Meeting, New York, NY, January 1960.
- Johnston, R. S., "Project Mercury Medical Operation Plan." NASA Project Mercury Working Paper, 5 November 1960.
- Johnston, R. S., "Project Mercury Medical Operations Plan." NASA Project Mercury Working Paper 161, 5 November 1960.
- Johnston, R. S., "Space Exploration: Manned Flight." Encyclopedia Britannica Science Yearbook, 1975.
- Johnston, R. S., "Status of Apollo." Presented at Second National Conference on Space Maintenance and Extravehicular Activities, Las Vegas, NV, August 1968.
- Johnston, R. S., "Summary of Past Findings in Biomedical Research Accumulated During Apollo and Skylab Missions." Presented at European Space Agency (ESA) Space Life Sciences Symposium, Cologne, Germany, 24-26 May 1977.
- Johnston, R. S., "The Control and Measurement of the Mercury Capsule Environment." Institution of Electrical Engineering Paper, 16 September 1960, Washington, DC.
- Johnston, R. S., "The Development of Space Suit Systems." Acta Astronautica, Second International Symposium on Basic Environmental Problems of Man in Space, Paris, France, June 1965.
- Johnston, R. S., and E. L. Hays, "The Development and Operation of Extravehicle Equipment." Acta Astronautica XVIIth International Astronautical Congress, Madrid, Spain, October 1966.
- Johnston, R. S., and L. F. Dietlein. "Medical Results of the Skylab Program." Acta Astronautica, XXVth International Astronautical Congress (IAF), Amsterdam, The Netherlands, September 1974.
- Johnston, R. S., and M. I. Radnofsky, "Non-flammable Clothing Development." Fire Technology, May 1968.
- Johnston, R. S., and Matthew Radnofsky, "Fire Safety in Manned Spacecraft." American Astronautical Society's 16<sup>th</sup> Annual Meeting, June 1969.
- Johnston, R. S., E. L. Hays, and L. F. Dietlein, "Crew Systems Development in Support of Manned Space Flight." International Astronautical Federation, XIVth Congress, Paris, France, September 1963.

- Johnston, R. S., E.D. Osgood, and R.R. Miller, "Analysis of Mixed Oxides of Calcium." Journal of Analytical Chemistry, Vol. 30, No. 4, April 1958.
- Johnston, R. S., et al., "Development of Skylab Medical Equipment and Flight Preparations." Acta Astronautica, Pergamon Press, 1975.
- Johnston, R. S., et al., "Life Support Systems and Biomedical Instrumentation." Results of the First U. S. Manned Orbital Space Flight, 20 February 1962.
- Johnston, R. S., G. G. Armstrong, M.D., and S. L. Pool, M.D., "A Concept for an Expanded Health Service System." Presented to the National Academy Engineering Conference on Technology in the 1980's, November 1971.
- Johnston, R. S., J. S. Rummel, Ph. D., and W. H. Bush, "Engineering and Simulation of Life Sciences Spacelab Experiments." Acta Astronautica, Vol. 6, pp. 1239-1249, Pergamon Press, Ltd., 1977.
- Johnston, R. S., J. V. Correale, M. I. Radnofsky, "Space Suite Development Status." The American Institute of Aeronautics and Astronautics, St. Louis, Missouri, October 1965.
- Johnston, R. S., Keynote Speech to Ninth Annual Intersociety on Environmental Sciences, July 16, 1979, San Francisco, CA.
- Johnston, R. S., L. F. Dietlein, M.D., and E. L. Michel. "The Medical Story," Presented to AIAA, Washington, D. C., 28-30 January 1974.
- Johnston, R. S., N. Belasco, J. C. Stonesifer, and S. L. Pool, M. D. "Remote Area Health Care Delivery Through Space Technology-STARPAHC." Presented to the 28<sup>th</sup> International Astronautical Congress of the International Astronautical Federation in Prague, Czechoslovakia, 25-30 September 1977.
- Johnston, R. S., Paul C. Rambout, and Rudolf A. Hoffman, "Exploring the Biomedical Applications of Weightlessness." Presented to the 1978 Aerospace Medical Association Annual Meeting in New Orleans, LA., 8-12 May 1976.
- Johnston, R. S., V. R. Wilmarth, and J. Zarcaro. "Future Apollo Scientific Programs." Proceedings 7<sup>th</sup> Annual AIAA Meeting, Houston, TX, October 1970.
- Johnston, R. S.. "Apollo-Soyuz Summary Report." Presented to the 23<sup>rd</sup> International Congress of Aviation and Space Medicine, Acapulco, Mexico, October 1975.
- Johnston, Richard S., and L.F. Dietlein, Editors. Biomedical Results of Skylab. NASA: Scientific and Technical Information Office. U.S. Government Printing Office, Washington, D C, 1977.

- Johnston, Richard S., Lawrence F. Dietlein, and Charles A. Berry. Biomedical Results of Apollo. Washington, DC: NASA, 1975.
- Michel, E. L., R. S. Johnston, and L. F. Dietlein, M. D. "Biomedical Results of the Skylab Program." Presented at the 18<sup>th</sup> Plenary Meeting of COSPAR, Varna, Bulgaria, 29 May -7 June 1975.
- Michel, E.L., G. B. Smith, and R. S. Johnston, "Gaseous Environment Considerations and Evaluation Programs Leading to Spacecraft Atmosphere Selection." Aerospace Medicine, Vol. 34 no. 12, December 1963.
- Pool, S. L., M. D. and R. S. Johnston. "The Johnson Space Center and Remote Health Care." Presented to Instrument Society of America, Houston, Texas, October 15-18, 1973; and to the Oklahoma State District Teacher's Association, Durant, OK, 1-2 March 1973.
- Pool, S. L., M.D. and R. S. Johnston. "The Johnson Space Center and Medical Technology." Presented to the 8<sup>th</sup> Annual Governor's Conference, Houston, TX, 20 November 1973.
- Pool, S. L., M.D. and R. S. Johnston. "The Manned Spacecraft Center and Medical Technology," Presented to American Astronautical Society, Dallas, TX, 21-22 November 1972.
- Pool, S. L., M.D., and R. S. Johnston, "STARPHAC: Advanced Bioinstrumentation and Space Applications," and "NASA Contributions to Emergency Medical Care System." Presented to the 125<sup>th</sup> Royal Society of Medicine, Amsterdam, The Netherlands, 11-21 October 1974.
- Rambout, Paul C., and Richard S. Johnston. "Prolonged Weightlessness and Calcium Loss in Man." Acta Astronautica, Vol. 6 pp.1113-1122, Pergamon Press, 1979.
- Rummel, J. A., Ph. D., William J. Huffstetler, and R. S. Johnston, "NASA Life Sciences Experiments for Spacelab I." Acta Astronautica. Presented to the XXIXth International Astronautical Federation in Dubrovnik, Yugoslavia, 1-8 October 1978.
- White, S. C., R. S. Johnston, and G. Pesman, "Review of Biomedical Systems for Mercury-Redstone Flight." Conference on Medical Results of the First U.S. Manned Suborbital Flight, 6 June 1961.
- White, S. C., R. S. Johnston, et al., "Preparation of the Life Support Systems for Flight." 1962 Annual Meeting of the Aerospace Medical Association, Atlantic City, NJ.

**BIOGRAPHICAL REFERENCES:**

NASA Biographical Data Sheets for Richard S. Johnston (1967; 1980; and 1982),  
Richard S. Johnston Biographical File, History Collection, Scientific and Technical  
Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Biographical Profile, Richard S. Johnston Key Personnel Inactive File, Awards Office,  
Lyndon B. Johnson Space Center, Houston, TX.

Who's Who In America, 43<sup>rd</sup> edition, Vol.1, s.v. "Johnston, Richard Smith."

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