

MILTON A. SILVEIRA

BIOGRAPHICAL DATA SHEET

NAME: Milton A. Silveira

ORAL HISTORY: 2 OCTOBER 2005 (NACA OHP), 18 APRIL 2006

EDUCATIONAL BACKGROUND:

- Bachelor's of Science in Mechanical Engineering, University of Vermont, Burlington, VT, 1951
- Master's of Science in Aeronautical Engineering, University of Virginia, Charlottesville, VA, 1960
- Post-Graduate work, University of Virginia, Charlottesville, VA, 1960
- Post-Graduate work, Virginia Polytechnic Institute, Blacksburg, VA, 1960
- Post-Graduate work, University of Houston, Houston, TX, 1966-1968

PRE-NASA EXPERIENCE:

NACA Langley Memorial Aeronautical Laboratory, Hampton, VA (1951)

- Research Intern, Dynamic Loads Division (1951)

United States Army

- 2nd Lieutenant, Ordnance Corp, Aberdeen Proving Ground, MD; San Marcos Air Force Base, TX; Fort Sill, OK, (1951-1952)
- Chief, Engineering Office, Transportation Corp Aviation Office, St. Louis, MO (1952-1954)
- Staff Maintenance Officer, Headquarters 8th United States Army, South Korea (1954-1955)

NACA Langley Memorial Aeronautical Laboratory, Hampton, VA (1955-1958)

- Aerospace Technologist, Vibration and Flutter Branch, Dynamic Loads Division (1955-1958)

NASA EXPERIENCE:

NASA Langley Research Center, Hampton, VA (1958-1963)

- Aerospace Technologist, Vibration and Flutter Branch, Dynamic Loads Division (1958-1961)
- Acting Head, Loads Section, Structures Branch, Space Task Group (1961)

NASA Manned Spacecraft Center/Lyndon B. Johnson Space Center (1961-1981)

- Fluid and Flight Mechanics (1961)
- Aerospace Engineer, Loads Section, Structures Branch, Spacecraft Research Division (1961-1963)
- Assistant Branch Chief/Deputy Chief, Aerodynamics Branch, Spacecraft Technology Division (1963-1964)
- Assistant Branch Chief/Deputy Chief, Aerodynamics Branch, Advanced Spacecraft Technology Division (1964-1965)

- Technical Manager/Program Manager, Little Joe II Launch Vehicle (1964-1965)
 - Head, Aerodynamics Branch, Advanced Spacecraft Technology Division (1965)
 - Head, Flight Performance and Dynamics Branch, Advanced Spacecraft Technology Division (1966-1967)
 - Assistant for Special Projects, Engineering and Development Directorate (1967-1968)
 - Chief, Engineering Analysis Office, Engineering and Development Directorate (1968-1969)
 - Manager, Space Shuttle Engineering Office, Space Shuttle Program Office (1969-1973)
 - Manager, Engineering Office, Space Shuttle Orbiter Project Office (1973)
 - Deputy Manager, Office of Project Manager, Space Shuttle Orbiter Project Office (1973-1981)
- NASA Headquarters, Washington, DC (1981-1986)
- Assistant to NASA Deputy Director (1981-1983)
 - NASA Chief Engineer (1983-1986)

AWARDS & CITATIONS:

- NASA Exceptional Service Medal (1969 and 1981)
- Honorary Doctorate of Science, University of Vermont, Burlington, VT (1977)
- MSC Sustained Superior Performance Award (1964, 1965, 1967, 1969)
- MSC Certificate of Commendation (1972)
- Outstanding Performance Award (1976)
- Federal Engineer Award (1983)

SELECT PUBLICATIONS:

Milton A. Silveira and George W. Brooks, "Dynamic-Model Investigation of the Damping of Flapwise Bending Modes of Two-Blade Rotors in Hovering and a Comparison with Quasi-Static and Unsteady Aerodynamic Theories," NASA-TN-D-175 (Washington D.C.: NASA Headquarters, 1959): 1-33.

Milton A. Silveira, David G. Stephens, and H. Wayne Leonard, "An Experimental Investigation of the Damping of Liquid Oscillations in Cylindrical Tanks," NASA-TN-D-715 (Washington D.C.: NASA Headquarters, 1961): 1-32.

Milton A. Silveira and George W. Brooks, "Analytical and Experimental Determination of the Coupled Natural Frequencies and Mode Shapes of a Dynamic Model of a Single Rotor Helicopter, NASA-MEMO-11-5-58L (Washington D.C.: NASA Headquarters, 1958): 1-46.

Milton A. Silveira, Domenic J. Maglieri, and George W. Brooks, "Results of an Experimental Investigation of Small Viscous Dampers," NACA-TN-4257 (Hampton, Virginia: NACA Langley Memorial Aeronautical Laboratory, 1958).

Milton A. Silveira, "System Integration Considerations for the Space Shuttle," Proceedings of the Short Course on the Space Shuttle Program (Boulder, Colorado: Aeronautics and Astronautics, Inc., January 1973), 1-16.

Milton A. Silveira, "The Damping of Flapwise Bending Modes of Two-Blade Rotors in Hovering," Thesis presented for degree of Masters of Science in Aeronautical Engineering, (University of Virginia, Charlottesville, VA, June 1959)

Milton A. Silveira and George W. Brooks, "Some Recent Studies in Structural Dynamics of Rotor Aircraft," NASA-TN D-737 (May 1961).

Milton A. Silveira, David G. Stephens, and H. Wayne Leonard, "An Experimental Investigation of the Damping of Liquid Oscillations in an Oblate Spheroid Tank With and Without Baffles," D-808 (June 1961).

Milton A. Silveira, Dennis J. Martin, Perry W. Hansen, and Sumiver A. Ledbetter, "Recent Studies of Structural and Aerodynamic Inputs to Missile Dynamic Problems," AIA Symposium on Structural Dynamics of High Speed Flight, (April 1961).

Milton A. Silveira, "An Investigation of Periodic Forces and Moment Transmitted to the Hub of Four Lifting Rotor Configurations."

Milton A. Silveira, R. D. Kennedy, R. C. Reid, and G. Strouhal, "Entry Velocity Capability of the Apollo," Review of Hypervelocity Reentry Research and Technology Conference, (Ames Research Center, Mountain View, CA, May 1967).

Milton A. Silveira and Carl Peterson, "A Space Shuttle Design Consideration," American Astronautical Society, (Anaheim, CA, June 1970).

Milton A. Silveira and Maxime A. Faget, "Fundamental Design Considerations for an Earth-Surface-to-Orbit Shuttle," XXI International Congress, (Constance, Germany, October 1970).

Milton A. Silveira, "Structural Design and Fabrication – Key to Space Shuttle Performance and Cost Credibility," AIAA, (Los Angeles, CA, November 1970).

Milton A. Silveira, "Role of the Mechanical Engineer in the Space Shuttle Program," 1984 John Orr Lecturer, South African Institution of Mechanical Engineers, (South Africa, March 1984).

Milton A. Silveira, "Safety Requirements for Going Beyond this Planet," Safety and Health at Work International Conference, (Adelaide, Australia, August 1986).

Milton A. Silveira, Associate Editor and Hans Mark, Editor, Encyclopedia of Space Science and Technology, (John Wiley and Sons, Inc., January 2003).

Milton A. Silveira and Maxime A. Faget, "An Overview of United States Manned Space Flight from Mercury to the Shuttle," IAF Conference, September 1981).

Milton A. Silveira and Aaron Cohen, "Space Shuttle Orbiter."

REFERENCES:

“Biographies of Aerospace Officials and Policymakers, O-S,” NASA History Division Homepage, Online, <http://history.nasa.gov/bioso-s.html> (Last Updated: n.d.; Accessed: 19 August 2005).

“Establishment of Space Shuttle Project Engineering Office,” MSC Announcement 69-181, 12 December 1969, Box GR1014, MSC Announcements, JSC History Collection, University of Houston-Clear Lake, University Archives, Houston, TX.

Milton A. Silveira NASA Biographical Data Sheet (February 1970), Milton A. Silveira Key Personnel File, Awards Office, NASA Lyndon B. Johnson Space Center, Houston, Texas.

Milton A. Silveira Service Record Card, Milton A. Silveira Personnel File, Human Resources Office, NASA Lyndon B. Johnson Space Center, Houston, TX.

NASA Lyndon B. Johnson Space Center Telephone Directories (1973-1998), Organization Files, Center Series, JSC History Collection, University of Houston-Clear Lake, University Archives, Houston, TX.

NASA Manned Spacecraft Center Telephone Directories (1968-1973), Organization Files, Center Series, JSC History Collection, University of Houston-Clear Lake, University Archives, Houston, TX.

“Nomination for Pi Tau Sigma Richards Memorial Award,” Milton A. Silveira Key Personnel File, Awards Office, NASA Lyndon B. Johnson Space Center, Houston, Texas.

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