

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

BIOGRAPHICAL DATA SHEET

NAME: Aaron Cohen

ORAL HISTORY: 25 September 1998
12 May 1999

EDUCATIONAL BACKGROUND:

B.S. in Mechanical Engineering, Texas A&M University, College Station, Texas, 1952
M.S. in Applied Mathematics, Stevens Institute of Technology, Hoboken, New Jersey, 1958

Advanced graduate study in Mathematical Physics at New York University (NYU), New York, New York and the University of California in Los Angeles (UCLA), Los Angeles, California

PRE-NASA CAREER:

Captain, Combat Army Engineer, United States Army (1952-1954)
Microwave Tube Design Engineer, Radio Corporation of America (RCA), Camden, New Jersey (1954-1958)
General Dynamics Corporation, San Diego, California (1958-1962)
Senior Thermochemical Engineer (1958-1961)
Senior Research Engineer (1961-1962)

NASA CAREER:

NASA Manned Spacecraft Center / Johnson Space Center, Houston, Texas
Structures and Materials Engineer, Spacecraft Research Division (1962)
Aerospace Engineer, Guidance and Control Engineering Office, Apollo Spacecraft Program Office (1962-1964)
Technical Assistant to the Chief, Systems Engineering Division, Apollo Spacecraft Program Office (1964-1966)
Chief, Systems Integration Branch / Systems Engineering Division, Apollo Spacecraft Program Office (1965-1967)
Head, Design Activity, Block II Redefinition at North American Rockwell, Apollo Spacecraft Program Office (1967)
Assistant Chief, Systems Engineering Division, Apollo Spacecraft Program Office (1966-1968)
Chief, Command and Service Modules Project Engineering Division, Apollo Spacecraft Program Office (1968-1970)
Acting Assistant Chief, Systems Engineering Division, Apollo Spacecraft Program Office (1968-1970)
Manager, Command and Service Modules, Apollo Spacecraft Program Office (1970-1972)

Manager, Orbiter Project Office / Space Shuttle Orbiter Project Office (1972-1982)
Director, Engineering and Development (1982-1983)
Director, Research and Engineering (1983-1986)
Director, Johnson Space Center (1986-1993)
Acting Deputy Administrator, NASA Headquarters, Washington, DC (1992)

CURRENT OCCUPATION:

H. B. Zachry Professor of Engineering, Texas A&M University, College Station, Texas (1993-present)
Senior Technical Advisor, Kistler Aerospace Corporation, Kirkland, Washington (date unknown-Present)

PROFESSIONAL & HONORARY SOCIETIES:

- Member, Tau Beta Pi (Honorary Engineering Society)
- Fellow, American Astronautics Society (AAS)
- Fellow, American Institute of Aeronautics and Astronautics (AIAA)
- Member, International Association of Astronautics
- Member, National Academy of Engineering
- Member, American Society of Mechanical Engineers (ASME)
- Member, University of Houston Presidential Development and Advisory Committee for the 21st Century
- Member, Texas A&M University Mechanical Engineering Development and Advisory Council
- Member, Rice University Advisory Council, George R. Brown School of Engineering
- Member, Greater Houston Partnership Board of Directors, Economic Development Advisory Committee, Government Relations Committee, Business Issues Committee, Education Steering Committee

AWARDS & CITATIONS:

- SSP Award, 1966
- QSI, 1968
- NASA Exceptional Service Medal, January 1969, October 1969
- JSC Certificate of Commendation, 1970
- NASA Medal for Outstanding Leadership, 1988, 1990
- NASA Distinguished Service Medal, 1973, 1981, 1988
- JSC Special Achievement Award, 1976, 1978
- Outstanding Performance Rating, 1978
- Engineer of the Year, San Fernando Valley Engineering Council, 1977
- Boss of the Year, American Business Women's Association, Clear Lake Area Chapter, 1977
- NASA Engineer of the Year Award, 1982, 1993
- Presidential Rank of Meritorious Executive for Senior Executive Service, 1981
- Presidential Rank of Distinguished Executive for Senior Executive Service, 1982, 1988

- W. Randolph Lovelace II Award (AAS), 1982
- Honorary Doctorate of Engineering, Stevens Institute of Technology, 1982
- Recipient of Laurels, Aviation Week and Space Technology
- President's Certificate of Recognition (AAS), 1991
- AIAA Von Karman Lectureship in Astronautics, 1984
- ASME Medal, 1984
- Texas A&M College of Engineering Alumni Honor Award, 1987
- University of Houston-Clear Lake Distinguished Leadership Award, 1988
- Joint Recipient, Goddard Memorial Trophy, 1989
- Texas A&M Distinguished Alumni Award, 1989
- Gold Knight of Management Award, NMA, Texas Gulf Coast Council, 1989
- Honorary Doctorate of Humane Letters, University of Houston-Clear Lake, 1989
- Executive Excellence Award for Distinguished Executive Service, Senior Executives Association Professional Development League, 1990
- National Space Trophy, Rotary National Award for Space Achievement Foundation, 1990
- Space Flight Award (AAS), 1990
- Outstanding Leader in the Aerospace Community, St. John Hospital, 1991
- Jack Swigert Memorial Award, American Cancer Society, 1992
- Roger W. Jones Award for Executive Leadership, American University, 1992
- Texas A&M University, Department of Mechanical Engineering, Academy of Distinguished Graduates, 1992

SELECT PUBLICATIONS:

Cohen, Aaron. "Refractory Metal Facings and Protection of Metal Surfaces Subjected to Repeated High Temperature Pulses." In American Society of Mechanical Engineers: Annual Meeting, 1958.

Cohen, Aaron. "Cryogenic Pumping of Non-Condensable Gases." In Institute of Environmental Sciences: Annual Meeting, 1961.

Cohen, Aaron. "Powered Flight Steering and Control of Apollo Spacecraft." In Society of Automotive Engineers: Northrop Nortronics SAE Committee Meeting, December 11-13, 1963, by NASA Manned Spacecraft Center. Houston: NASA Manned Spacecraft Center, 1963.

Cohen, Aaron. "Apollo Re-entry Guidance Requirements." In Department of Defense, Federal Aviation Administration, and NASA: Department of Defense, Federal Aviation Administration, and NASA Re-entry Meeting, 1965.

Cohen, Aaron. "Space Shuttle Utilization and the Space Transportation System." IBM Technical Directions (Winter 1977).

Cohen, Aaron. "Space Shuttle Orbiter: Countdown." In Sixteenth Space Congress, 1979.

- Cohen, Aaron. "The Space Shuttle." McGraw Hill Yearbook of Science and Technology (1979).
- Cohen, Aaron. "Space Shuttle Orbiter: Countdown." In Society of Automotive Engineers: Meeting, 1980.
- Cohen, Aaron. "The Space Shuttle." McGraw Encyclopedia of Science and Technology (1980).
- Cohen, Aaron. "The Space Shuttle." McGraw Hill Yearbook of Science and Technology (1982).
- Cohen, Aaron. "Progress of Manned Space Flight - Apollo to Shuttle." In American Institute of Aeronautics and Astronautics: Twenty-second AIAA Aerospace Sciences Meeting, January 1984.
- Cohen, Aaron. "Space Station Design Challenges." In American Institute of Aeronautics and Astronautics, 1984.
- Cohen, Aaron. "Space Station Design: Innovation and Compromise." Aerospace American (September 1984).
- Cohen, Aaron. "Test and Evaluation of the Shuttle." In International Test and Evaluation Symposium, November 1984.
- Cohen, Aaron. "Automation and Robotics: Key to Productivity." In International Astronautical Federation, October 1985.
- Cohen, Aaron. "Future Uses of Machine Intelligence and Robotics for the Space Station." In Institute of Electrical and Electronics Engineers: IEEE International Conference on Robotics and Automation, 1985.
- Cohen, Aaron. "Use of Automation and Robotics for the Space Station." In Advances in Intelligent Robotics Systems Conference, October 1986.
- Cohen, Aaron. "Use of Automation and Robotics for the Space Station." In Space Station Automation II: Proceedings of the Meeting in Cambridge, Massachusetts, October 28-30, 1986, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1986.
- Cohen, Aaron. "Progress in Space - from Shuttle to Station." Proceedings of the IEEE Special Issue (March 1987).

- Cohen, Aaron. "Mars Rover Sample Return Mission - Delivery and Return Challenges." In American Institute of Aeronautics and Astronautics / National Aeronautics and Space Administration: First International Symposium on Space Automation and Robotics in Arlington, Virginia, November 29-30, 1988, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1988.
- Cohen, Aaron. "Project Management: JSC's Heritage and Challenge." Issues in NASA Program and Project Management 1(1988).
- Cohen, Aaron. "The Case for the Evolution of the Shuttle System." In IAF: 40th International Astronautical Congress in Malaga, Spain, October 7-13, 1989, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1989.
- Cohen, Aaron. "Director's Message." Space News Roundup 28, no. 28 (14 July 1989): 2 [History Collection. Scientific and Technical Information Center. Lyndon B. Johnson Space Center, Houston, TX].
- Cohen, Aaron. "Project Management: JSC's Heritage and Challenge." Space News Roundup 28, no. 13 (31 March 1989): 3 [History Collection. Scientific and Technical Information Center. Lyndon B. Johnson Space Center, Houston, TX].
- Cohen, Aaron. "Report of the 90-Day Study in Human Exploration of the Moon and Mars." Study Team Leader, 1989.
- Cohen, Aaron and Jon D. Erickson. "Use of Artificial Intelligence in Supervisory Control." In Georgia Institute of Technology: Human-Computer Interaction in Distributed Supervisory Control Tasks, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1989.
- Cohen, Aaron, Joseph P. Loftus, Jr., and Robert G. Minor. "The Evolution of the Space Shuttle." In IAF: 41st International Astronautical Congress in Dresden, Federal Republic of Germany, October 6-12, 1990, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1990.
- Cohen, Aaron. "Human Exploration of Space and Power Development." In SPS-91 - Power from Space: Proceedings of the Second International Symposium in Gif-sur-Yvette, France, August 27-30, 1991, by NASA Johnson Space Center, 31-35. Houston: NASA Johnson Space Center, 1991.
- Cohen, Aaron. "Human Exploration of Space and Power Development." In IAF: 42nd International Astronautical Congress in Montreal, Canada, October 5-11, 1991, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1991.

Cohen, Aaron. "The Challenges and Benefits of Lunar Exploration." In Arizona University: Proceedings of the Lunar Materials Technology Symposium, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1992.

Cohen, Aaron. "Season's Greetings." Space News Roundup 31, no. 48 (18 December 1992): 1 [History Collection. Scientific and Technical Information Center. Lyndon B. Johnson Space Center, Houston, TX].

Cohen, Aaron. "Variables to be Considered for Further Human Exploration of Space." In American Institute of Aeronautics and Astronautics: 30th Aerospace Sciences Meeting and Exhibit in Reno, Nevada, January 6-9, 1992, by NASA Johnson Space Center. Houston: NASA Johnson Space Center, 1992.

Cohen, Aaron. "The Future of Manned Spaceflight." In National Academy of Engineering: The Future of Aerospace, Proceedings of a Symposium Held in Honor of Alexander H. Flax, by NASA Johnson Space Center, 15-27. Houston: NASA Johnson Space Center, 1993.

O'Brien, John E., Lennard A. Fisk, Arnold A. Aldrich, Thomas E. Utsman, Michael D. Griffin, and Aaron Cohen. "NASA Reports." In Space Foundation: Proceedings, 8th National Space Symposium in Colorado Springs, Colorado, by NASA Headquarters, 179-209. Washington, DC: NASA Headquarters, 1992.

PATENTS:

Patent Received

A Novel Method of Supporting a Helix in a Traveling Wave Tube, 1957.

Patent Disclosures

Refractory Metal Facings for Protection of Anode Vane in High Pulsed Power Magnetrons, 1958

Fabrication of Wafer Type Ceramic Windows for Microwave Tubes, 1956

Laminal Construction of an Interdigital Slow-Wave Circuit for Millimeter Wave Tubes, 1957.

Fabrication and Design of Slow-Wave Circuits for Millimeter Wave Tubes, 1956.

BIOGRAPHICAL REFERENCES:

Aaron Cohen, "Director's Message," Space News Roundup 28, no. 28 (14 July 1989): 2.

"Aaron Cohen, Director of Research and Engineering" Information Sheet (post-1980), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Aaron Cohen All Hands Briefing Videorecording, 45 min., Lyndon B. Johnson Space Center, 1988, videocassette.

Project Management, JSC: NASA Program and Project Management Initiative, 79 min., Lyndon B. Johnson Space Center, 1989, videocassette.

Aaron Cohen, "Project Management: JSC's Heritage and Challenge," Space News Roundup 28, no. 13 (31 March 1989): 3.

Arthur S. Flemming Award Nomination Form (6 November 1970), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Brian Welch, "An Interview with Aaron Cohen: JSC's Director Begins Return to Center Duties with his Eyes on Space Station Challenges," Space News Roundup 31, no. 46 (4 December 1992): 3.

"Aaron Cohen, Director of Research and Engineering" Information Sheet (post-1980), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Distinguished Executive Service Award Nomination Documentation, Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Distinguished Executive Service Award Nomination Documentation (24 July 1990), Aaron Cohen Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Federal Executive of the Year Nomination (29 March 1989), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Goddard Astronautics Award Nomination Form (5 December 1983), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Historical Profile Project Nomination (6 June 1984), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Information Prepared by Bob Hood to Support the 1981 SES Rank Nominations (16 March 1981), Aaron Cohen Key Personnel File, Awards Office Lyndon B. Johnson Space Center, Houston, TX.

J. Cohen, ed., Dr. Aaron Cohen, [Executive and Technical Team Page]. [Online]. (2 April 1998 - Last Updated), Available: <http://newspace.com/industry/Kistler/std/techTeam.html#Cohen> [17 June 1998 - Accessed].

“Johnson Space Center” Experience and Outstanding Qualities (January 1974), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Johnson Space Center Announcement No. 82-85 (29 July 1982), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Johnson Space Center Announcement No. 86-129 (17 October 1986), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Johnson Space Center Announcement No. 89-140 (7 August 1989), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Johnson Space Center Announcement No. 92-23 (28 February 1992), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Johnson Space Center Announcement No. 93-95 (5 August 1993), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Johnson Space Center Announcement No. 93-98 (11 August 1993), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Kelly Humphries, “Aaron Cohen: JSC’s Director Discusses Recovery, Safety and the Center’s Future,” Space News Roundup 27, no. 3 (29 January 1988): 3.

Kelly Humphries, “Working with Giants: Outgoing JSC Director Aaron Cohen Looks Back on his NASA Career and Ahead to the Future of the Center,” Space News Roundup 32, no. 32 (16 August 1993): 3.

Letter from Christopher Kraft to H. R. Bright (4 May 1981), Recommendation for Texas A&M Honorary Doctorate.

Linda Neuman Ezell, NASA Historical Data Book, Vol. II, *Programs and Projects 1958-1968*, The NASA Historical Series (Washington, DC: NASA, 1988), 119.

Manned Spacecraft Center Announcement No. 66-183 (20 December 1966), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Manned Spacecraft Center Announcement No 70-168 (11 September 1970), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

Manned Spacecraft Center Announcement No. 72-98 (26 June 1972), History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

NASA, Biographies of NASA Deputy Administrators, [NASA History Office Homepage]. [Online]. (8 July 1997 - Last Updated), Available: <http://www.hq.nasa.gov/office/pao/History/Biographies/cohen.html> [9 July 1997 - Accessed].

NASA Biographical Data Sheet (March 1969), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Biographical Data Sheet (post-1980), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Biographical Data Sheet (November 1986), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Biographical Data Sheet (May 1988), Aaron Cohen Biographical File, Biographies Collection, Library and Archives, John F. Kennedy Space Center, Cape Canaveral, FL.

NASA Biographical Data Sheet (May 1988), Aaron Cohen Biographical File, History Collection, Scientific and Technical Information Center, Lyndon B. Johnson Space Center, Houston, TX.

NASA Biographical Data Sheet (September 1991), Aaron Cohen Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Biographical Data Sheet (January 1993), Aaron Cohen Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Biographical Data Sheet for Aaron Cohen (May 1993), Public Affairs Office, Lyndon B. Johnson Space Center, Houston, TX.

[Brief Paragraph Form] NASA Biographical Data Sheet for Aaron Cohen (May 1993), Public Affairs Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA JSC Senior Executive Service Position (1 January 1980), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Outstanding Leadership Medal Justification (19 August 1987), Aaron Cohen Key Personnel Inactive File, Awards Office, Johnson Space Center, Houston, TX.

NASA Senior Executive Service Performance Appraisal Form (31 March 1981), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Senior Executive Service Performance Appraisal Form (30 June 1987), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

NASA Senior Executive Service Performance Appraisal System (21 April 1980), Aaron Cohen Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

New Information from Milt Silveira (23 February 1976), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Newspaper Clipping, "JSC Official Works Coast-to-Coast Job" (31 January 1982), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Nomination Justification Statement for the Rank of Distinguished Executive, Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Nomination Justification Statement for the Rank of Distinguished Executive (1988), Aaron Cohen Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Nomination Justification Statement for the Rank of Meritorious Executive (8 May 1981), Aaron Cohen Key Personnel File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Pi Tau Sigma Richards Memorial Award Nomination Form (13 March 1975), Aaron Cohen Key Personnel Inactive File, Awards Office, Lyndon B. Johnson Space Center, Houston, TX.

Who's Who in America, 44th ed. Vol. 1, s.v. "Cohen, Aaron."

Who's Who in Science and Engineering, 4th ed., s.v. "Cohen, Aaron."