



# AARON COHEN

1931–2010

Elected in 1989

*“For technical leadership and engineering achievements in  
manned spaceflight systems.”*

BY JOHN L. JUNKINS

**A**ARON COHEN, former director of the Johnson Space Center and pioneer of the Apollo and Space Shuttle programs, died February 25, 2010. Aaron was born to Russian immigrant parents, Charles and Ida Cohen, on January 5, 1931, in Corsicana, Texas. His family moved to San Antonio when he was 5. At 16 he met his future wife, Ruth, then 14. They married in 1953 and shared a 57-year marriage that was richly fulfilling. Aaron and Ruth lived the American Dream.

In 1949, Aaron enrolled at Texas A&M University, where he earned a bachelor of science in mechanical engineering in 1952; upon graduating and following completion of his ROTC military obligation, including a tour of duty in Korea, Aaron began his engineering career at the Radio Corporation of America in 1954. There he contributed to the development of a magnetron tube, which would be the heart of a revolutionary new kitchen appliance, which we all know and own today as the microwave oven. Along with two colleagues at RCA, Aaron was also awarded a U.S. patent for innovations in a cathode ray tube design for color television.

Three life-changing events occurred during the four years that Aaron was employed at RCA. It was during this period that he and Ruth became parents. His daughter, Nancy, was born in 1956 and his son, David, in 1958. While working full-time, Aaron completed a master of science in applied mathematics from Stevens Institute of Technology, in Hoboken, New Jersey, in 1958. In October 1957 the Russians launched *Sputnik I*, ushering in the space age. Aaron knew that this was the beginning of the space age, and he wanted to be involved.

In 1958, Aaron and his family moved to San Diego, California, where he worked for General Dynamics on the Atlas and Centaur programs. His son, Daniel, was born there in 1960. When President Kennedy and the National Aeronautics and Space Administration (NASA) announced the Apollo program to send men to the Moon, Aaron could not resist the opportunity and challenge to join the effort. Aaron and his family moved to Houston in 1962 to launch his storied career at NASA. He began contributing significantly during the early 1960s and soon was playing key leadership roles in the Apollo mission that landed men on the Moon in July 1969.

Stevens Institute of Technology awarded Aaron an honorary doctor of engineering in 1982, and in 2010 Texas A&M University conferred on Aaron an honorary doctor of letters. Aaron was elected a fellow of the American Association for the Advancement of Science and an honorary fellow of the American Institute of Aeronautics and Astronautics (AIAA). In addition to election to the National Academy of Engineering, Aaron won numerous honors over his career, including the AIAA von Karman Lectureship, the AAS Lovelace Award, and twice was named NASA Engineer of the Year, in 1982 and 1983.

Aaron had a remarkable career at the Manned Spacecraft Center, later renamed the Lyndon B. Johnson Space Center. He was manager of the Command Module for the Apollo program and later led the Shuttle Orbiter Project; he also served as director of research and engineering at JSC. In 1986, after seven astronauts died in the explosion of the Space Shuttle *Challenger*, he was named director of the Johnson Center.

During that uncertain period, his leadership was crucial in rebuilding confidence in the organization and the technology and eventually getting Americans back in space with successful Space Shuttle flights resuming in 1989. He remained director of the Johnson Space Center until his retirement in 1993. In his last year with NASA, Aaron also served as acting deputy administrator at NASA headquarters in Washington, D.C.

During his career he experienced great tragedy and also incredible success. He never forgot the lessons learned from the tragedies, and he was always quick to share successes with his colleagues. The significant pioneering roles that Aaron played in the historic *Apollo 8*, *Apollo 11*, and *Apollo 13* missions provided the reference frame for his technical and managerial leadership during the Space Shuttle and Space Station programs from the early 1970s until his retirement in 1993. The Space Shuttle was Cohen's "baby," his wife Ruth said. Aaron's leadership and technical competence were the keys to the Shuttle program; he took great pride in NASA's recovery from *Challenger* and in the 14 years of nearly flawless Shuttle missions interrupted by the *Columbia* tragedy in 2003.

We record here brief tributes from a few colleagues and friends well positioned to appreciate Aaron's many contributions:

NASA Administrator Charles Bolden said Cohen was one of his earliest mentors and praised him as being instrumental in the success of human spaceflight. It is clear that Aaron's blend of technical expertise, experience, judgment, and "calm leadership ability when the chips were down" were unique and vital attributes: "His engineering expertise and rigor were tremendous assets to our nation and NASA," Bolden said. "Aaron provided the critical and calm guidance needed at the Johnson Space Center to successfully recover from the *Challenger* accident and return the Space Shuttle to flight. We will miss him as a colleague, mentor and a friend."

Michael L. Coats, the Johnson Space Center's current director, wrote in a message to employees announcing Cohen's death that Aaron Cohen's efforts had been critical to the successes of all six American lunar landings. He was a

leader in the space program for more than three decades, “with scientific and programmatic experience that is unparalleled,” Mr. Coats wrote.

“He would be the individual you would try to duplicate in every program manager that you have at NASA,” said Christopher Kraft, Cohen’s friend, colleague, and supervisor at NASA. “I think Aaron was one of those people who was the ideal man for the job, and I think that anybody who tries to do it in the future ought to do it like he did it.”

“He was the one person at the Johnson Space Center responsible for the design, development, tests, and the funds—the budget of the Shuttle—from the time it started to the time it flew,” Kraft said. “Everybody looked up to Aaron and everybody had the highest regard and respect for him throughout the government and the aerospace industry, and that’s what made the Shuttle project go as well as it did.”

While Aaron led a busy and frequently hectic life with the leadership roles throughout his career, he was a loving husband and father. He was extremely disciplined and focused on his work, but he always carved out time to be with his wife, Ruth, and their three children. “He had a routine of putting in 12- and 14-hour days,” Ruth said. “He worked on Saturday until maybe 1 o’clock, and then he put it away until Sunday evening. So Saturday afternoon until Sunday evening was our family time.”

Ruth wrote that he won the Texas State High School Tennis Tournament in 1948; he taught their sons to play tennis and each played on high school and college teams, as he had done. He took great pride and pleasure in accompanying his granddaughter, Ariela, to national tennis tournaments and then seeing her serve as captain of the women’s tennis team at Lehigh University. He and I enjoyed fabulous trips both at home and abroad, and one of our great pleasures was taking grandchildren on special trips, two cousins at a time.

Following his retirement from NASA in 1993, Aaron and Ruth moved to College Station, Texas, where Aaron started a new career, as a professor of mechanical engineering at his alma mater, Texas A&M University. Aaron taught design for

a decade and was a favorite of the mechanical engineering students privileged to study under his direction. "He loved teaching," Ruth Cohen said. "The young people were just so interesting for him to work with, and he just took to teaching like a duck takes to water." One of Aaron's proudest moments came in January 2010, when Texas A&M President Bowen Loftin and many friends and family came to his home to witness President Loftin confer on Aaron the doctor of letters degree, a rare and most meaningful honor to crown his career.

Following his death on February 25, 2010, in College Station, Aaron was buried in San Antonio. He is survived by his wife, Ruth; children Nancy, David, and Daniel; and nine grandchildren. The Aaron Cohen Engineering Scholarship has been established at Texas A&M in his honor.