

## Peter Staudhammer, 1934-2008

Peter Staudhammer, 73, who led a breathtaking variety of interdisciplinary scientific and engineering projects in both commercial and academic realms died January 14 after losing his battle with cancer.

Staudhammer was the former vice president and chief technical officer of TRW, the former director and chief operating officer of the Alfred E. Mann Institute for Biomedical Engineering at the University of Southern California.



"Because of Pete's exceptional leadership, technical brilliance, and kindness to all, he was able to recruit and develop a team of professionals that are truly gifted and highly motivated to develop a wide range of technologies and products that are critically important to our society. Pete's multi-discipline vision, as well as his humanity, has built a strong foundation for the Institute's future, and he will be deeply missed by all of us at AMI," said Jonathan G. Lasch, Director of the Alfred E. Mann Institute for Biomedical Engineering at The University of Southern California.

"Pete Staudhammer was an extraordinary engineer and a wonderful colleague and friend," said Yannis C. Yortsos, dean of the USC Viterbi School. "His experience and leadership helped speed the process of technology transfer from the lab to the marketplace. More importantly, he helped catalyze new technology development in the school and in the biomedical engineering area."

At TRW Staudhammer was the chief engineer and one of the principal architects of the lunar descent engine for NASA's historic Apollo missions to the Moon including the successful rescue of Apollo 13, which was accomplished with the lunar lander.

"Pete Staudhammer was an engineer's engineer—a broadly competent engineer both highly analytical and innovative," said Simon Ramo, co-founder of TRW. "He was such a nice man. Everyone—young engineers and senior experts—would come to consult him, as did all of the top executives. He will be greatly missed."

In 42 years at TRW he performed original research and development on rocket engine combustion, space-borne instrumentation, solid state electronics, thermonuclear fusion, high energy lasers and automotive systems. He managed development of classified systems used today in national defense and was

responsible for TRW corporate technology transfer that led to successful product lines. Among these was automotive electric steering with sales of over \$1 billion per year.

He pioneered hydrazine-fueled rocket engines, now a standard of spacecraft propulsion and developed space instruments for the exploration of Venus, Mars, Jupiter and Saturn. The most notable of these was the Viking Biology Experiment, the first such instrument to search for life on Mars.

Under his leadership TRW's Central Research Laboratories created an ionized plasma-based isotope separation process to separate palladium isotopes for prostate cancer therapy; applied gallium arsenide technology for GHz communications; and developed megawatt-class continuous-wave chemical lasers.

When he retired as TRW's chief technical officers and vice president for science and technology in 2002, he had been overseeing the efforts of 17,000 engineers and scientists worldwide.

He next served as director and chief operating officer of the USC's Mann Institute from 2003 until 2007 when ill health forced him to resign. He was a research professor in the USC Department of Biomedical Engineering and also continued to act as an industry consultant for Northrop Grumman, the U.S. Department of Energy.

He was a member of General Motors Corporate Technical Advisory Committee and served on the Ohio State Science and Technology Council.

Early in his career, before going to TRW, he performed fundamental research the combustion characteristics of rocket fuels at JPL.

Staudhammer was a member of the National Academy of Engineering where he was cited for "fundamental contributions to space systems, plasma and microwave processes, instrumentation and its application to commercial systems." He chaired or served on several of that organization's committees.

He was a member of the President's National Security Telecommunications Advisory Committee, the Magnetic Fusion Advisory Committee to the Secretary of Energy and served on numerous National Research Council committees. He was a member and/or chair of industrial advisory committees to engineering schools at UCLA, UC-San Diego, UC-Riverside, University of Michigan, Case Western Reserve and USC.

Staudhammer earned his BS, in electrical engineering in 1955 and an MS in 1956 and his PhD in chemical engineering in 1957, all at UCLA. UCLA's engineering school honored him as Alumnus of the Year in 1992 while UC-

Riverside named him Industrialist of the Year in 2004. The recipient of numerous achievement awards from NASA, he was awarded NASA's Distinguished Public Service Medal in 2002.

He was devoted follower of opera serving on the board of the Palm Springs Opera Guild.

A resident of La Quinta, he is survived by his wife Marie; three daughters, Christina, Julia Headon and Debra; three stepchildren, Jennifer Vorster, Hillary Gilman and Steven Gilman; and six grandchildren