



*Craig Morley*

## CRAIG MARKS

1929–2009

Elected in 1985

*“For his advancement of the engineering art in automotive power trains, safety, aerodynamics, and emissions control, along with his concerns for the engineering profession.”*

BY TREVOR O. JONES

CRAIG MARKS, one of the world’s foremost automotive engineers, died July 20, 2009, in Bloomfield Hills, Michigan. He was born on October 9, 1929, in Salt Lake City; the family moved to California, and he was educated at Berkley Hall in Beverly Hills.

Following receipt of his B.S., M.S., and Ph.D. degrees in mechanical engineering from the California Institute of Technology, Craig moved to Detroit in 1955 to join Ford Motor Company’s scientific laboratories. In 1956 he moved across town to join the General Motors research laboratories as a staff engineer in the automotive engines department. In 1957 Craig received the Society of Automotive Engineers (SAE) Horning Memorial Award for his fundamental research on engine combustion noise. Craig’s initial activities at GM distilled in him the need for a proactive pioneering spirit in the development of advanced-performance alternative power plants, including a high-performance-battery electric vehicle and a fuel-cell-powered van.

In 1968 Craig transferred to GM's advanced products engineering organization, where he was totally immersed in the development of emissions control systems. This activity was the highest engineering development priority at General Motors. Success in developing the industry's first durable catalyst using unleaded fuel was essential for GM's ability to meet the new exhaust emissions standards.

In 1972 Craig became executive assistant to the vice president of GM's engineering staff. In this position he was responsible for program and policy direction of the technical activities of a 6,000-person central engineering development organization that performed design, testing, and development operations and operated two major proving grounds for GM.

In the late 1970s the U.S. government promulgated a series of automotive standards for emissions, fuel economy, safety, noise, and repairability. GM elected to create an environmental activities staff and appointed Dr. Marks as its first executive director in 1979. This staff was responsible for corporate programs dealing with automotive emissions, safety, fuel economy, vehicle noise, and manufacturing plant environmental issues and for interaction with both the public and the government agencies concerning these areas.

In 1983, TRW, a major automotive supplier, recruited Craig to become its first vice president of engineering and technology, responsible for product technology, manufacturing, quality, purchasing, and information systems. Subsequently, Craig's responsibilities were expanded to include technical management of passenger restraint product and process development, including product integrity procedures, during the concept and start-up phase of a new business that supplies airbag systems, as well as seatbelts, to the worldwide automotive industry.

Owing to Craig's vast knowledge of automotive technology, he was recruited by Allied Signal in 1988 to become vice president of technology and productivity, responsible for policy and programs for the automotive sector's functions of manufacturing; quality; health, safety, and environment; public affairs; business planning; and direction of the Allied Automotive Technical Center.

In 1992 Craig essentially retired from the industry side of the automotive business and became visiting professor at the College of Engineering and School of Business, University of Michigan, Ann Arbor, and co-director of the Joel Tauber Manufacturing Institute, a program to establish new curricula and research activities for the engineering college, business school, and other units of the university, with extensive industry guidance, support, and interaction. Craig also served as president and as a member of the board of directors of Altarum in Ann Arbor and as a member of the board of directors at Intermap Technologies.

Having worked with Craig at General Motors and TRW and also having served on many committees of the National Research Council and SAE together, I quickly came to realize how thoughtful he was under a variety of intense situations. This admirable trait was particularly well demonstrated during our GM days, when we were striving to develop effective catalytic converters and airbags under extremely compressed time schedules. Craig was always soft spoken yet very convincing because of his extensive and in-depth knowledge of all aspects of automotive engineering.

One of his favorite pastimes was flying his own plane throughout the United States and Mexico for over 40 years with his lovely wife, Anne. Craig was also an avid tennis player, and his height gave him a distinct advantage. Both Craig and Ann signed up for the SAE Greenbrier Annual Tennis Championship, and each entered enthusiastically and played extremely well. A lifelong Christian Scientist, Craig was a member of the First Church of Christ the Scientist, in Birmingham, Michigan, and the Mother Church in Boston.

Craig will be sorely missed by his devoted wife of 37 years, Anne; his children, Gary Marks (Becky), Everett, Washington; Diane White, Fort Collins, Colorado; Marian Deming (John), Loveland, Colorado; his seven grandchildren, Lynn and Laura Marks, Heidi White, Joshua, Matthew, Ryan and Lindsay Deming; and sister-in-law Mary Hakola (Vern), Stuart, Florida.