



Mechanical Engineering
Academy of Distinguished Alumni

Clay W.G. Fulcher, Ph.D.

Charter Member

BSME, The University of Texas at Austin, 1955
MSME, The University of Texas at Austin, 1959
Ph.D., ME, University of Houston, 1969

Consultant (Retired)
The Boeing Company

Dr. Fulcher was born in Wichita Falls, Texas, on March 28, 1933, to Henry C. and Elma Gunn Fulcher. He attended high school at Wichita Falls High, where he played guard on the 1949 state champion football team. He entered The University of Texas in 1950 and led a lively student career as a member of the Silver Spurs and as one of the original “gophers,” a group of students who dug out the basement of old Taylor Hall at night for the Taylor T-Room.

Upon earning his mechanical engineering degree in 1955, Dr. Fulcher received a commission to the U.S. Navy as ensign. He served his active duty in WestPac as engineering officer aboard the USS Formoe (DE) and the USS George A. Johnson (DE). Following his release from active duty, he returned to UT and earned his MSME degree in 1959.

He went to work for General Electric in 1959 and held assignments in Flight Propulsion, Aircraft Nuclear Propulsion, and Missile and Space. He completed GE advanced engineering courses before moving to GE Space Division in Houston in 1962. During this time, Dr. Fulcher also earned a Ph.D. in mechanical engineering at the University of Houston, with his thesis on control of a liquid cooling garment for extravehicular astronauts. He retired from G.E. in 1980.

Dr. Fulcher then spent several years with Schlumberger as manager for product engineering and engineering services. In 1984, he returned to the aerospace industry’s McDonnell Douglas Aerospace/Boeing as director of vehicle analysis and flight crew operations.

Upon retirement from Boeing in 1998, he formed Engineering Support Services Corp. and served as liaison between Goddard and Houston Space Centers in the repair missions for the Hubble Telescope, also

participating in astronaut training for those missions. He was named a NASA Space Flight Awareness Honoree, the highest honor bestowed by NASA, for his work on the Hubble Space Telescope.

Overall, Dr. Fulcher made significant contributions in two fields- space exploration through his high-level positions in the aerospace industry, and technically superior military advancements through his career positions in the U.S. Navy Reserve. Most notably, he is credited for much of the successful operation and safety of the astronaut space suits used since the 1960s. His cooling principles, helmets, suits and portable life support systems first employed by astronauts who walked the moon continue to be used by shuttle and international space station astronauts today. He also continued to serve in the Navy Reserve after active duty and served in several assignments, including as commanding officer of the Office of Naval Research, rear admiral in the Navy Reserve, and deputy commander, naval air systems command. He retired in 1989.

He has been honored with many awards, including recognition as a distinguished graduate of the UT College of Engineering (now the Cockrell School of Engineering), distinguished alum of the Midshipmen Foundation and NROTC Alumni, and the Astronauts Silver Snoopy Award. The Houston chapter of the Naval Order also honored him with the Fleet Admiral Chester Nimitz Leadership Award.

Dr. Fulcher passed away in October 2011 and is survived by his loving wife of 56 years, Ann Arledge, and 4 sons, Clay Jr., Sam, Ray and Joe.