



Mechanical Engineering
Academy of Distinguished Alumni

Gerald P. D'Arcy

Charter Member

BSME, The University of Texas at Austin, 1956

MSME, University of Colorado, 1962

Ph.D., ME, The University of Texas at Austin, 1973

Principal Engineer and Vice President (Retired)

Applied Research Associates, Inc.

Colonel (Retired)

U.S. Air Force

Dr. Gerald P. D'Arcy was born in Michigan but moved to Austin when his father worked for the Lower Colorado River Authority (LCRA). D'Arcy worked at LCRA during the summers. He earned a BSME from The University of Texas and a commission in the U.S. Air Force. During a 30-year career as an engineering and scientific officer, he worked on a lot of neat stuff in meteorology, space, and geophysics.

His junior officer assignments began at Dyess AFB in Abilene, Texas as a weather officer. His responsibilities increased from preparing daily forecasts and briefing flight crews, to wing weather officer, preparing and briefing forecasts for worldwide deployments. D'Arcy earned a MSME from the University of Colorado in 1962. Assigned to the Air Force Weapons Laboratory, D'Arcy worked on projects for nuclear hardening of Minuteman Missile Silos that ranged from theoretical predictions of free field motions from nuclear blasts to analyzing simulations to determine effects on launchers and control facilities. He developed a technique to simulate nuclear airblast-induced ground motions, techniques still used to predict vulnerability of hardened structures.

In 1967, D'Arcy was assigned to the Lawrence Radiation Laboratory. He designed and taught a 16-lecture series on mathematics distributed to U.S. Atomic Energy Commission libraries nationwide. Other projects included a new class of nuclear weapons, underground tests, and obtaining a soil stress gauge patent.

D'Arcy came back to UT Austin to obtain a Ph.D. in mechanical engineering. As Dr. Phil Schmidt's first Ph.D. student, he completed a challenging dissertation on "Magnetohydrodynamic Entry Flow in a Channel with an Axial Magnetic Field," which was published in the Journal of Fluid Mechanics. LTC D'Arcy, Ph.D. was assigned to HQ, Air Force Systems Command as chief of the Physical and Engineering Sciences Division responsible for all Air Force basic research in science and engineering.

Colonel D'Arcy served as vice commander of the Air Force Geophysics Lab and directed a staff of 600 to specify operational environments. Their research spanned space, meteorology, earth sciences, and optics, with worldwide locations and two specially equipped Boeing 707 aircraft. In 1984, he became commander of the Air Force Office of Scientific Research, directing all Air Force basic research with a \$235 million budget at universities, industry, and 14 Air Force labs. Air Force decorations include the Legion of Merit.

D'Arcy retired from the Air Force in 1986 and became principal engineer and vice president of Applied Research Associates, Inc. at Kendall AFB, Florida. Research programs included fire technology, pavement technology, structural materials and dynamic response, energy, and nuclear and conventional weapon effects as well as medium interactions. He retired again in 1995.