



IN MEMORIAM

Robert Louis Wiegel
Professor of Civil Engineering, Emeritus
UC Berkeley
1922 – 2016

Robert (Bob) Louis Wiegel, Professor of Civil Engineering, Emeritus, died July 9, 2016, in Berkeley, California. He was 93.

One of five children, Professor Wiegel (Bob) was born on October 17, 1922, in San Francisco, California, to Louis Henry and Antoinette L. (Decker) Wiegel. His parents moved to Oakland, California, in 1923. After graduating from Oakland High School, he attended the University of California, Berkeley, where he received his B.S. in mechanical engineering (M.E.) in 1943. While at Berkeley, he was in the ROTC program (Army Ordinance Corps). Following graduation, Bob was sent to Europe as a second lieutenant and assigned to a U.S. Army Ordinance Tank Repair Unit. While in England he met his future wife, Anne Pearce. In 1946, he was discharged from the Army as a first lieutenant, returned to Berkeley and received his M.S. degree in mechanical engineering in 1949. While in graduate school, he and Anne were married in Berkeley in 1948.

Motivation instilled by his parents since an early age, his undergraduate study in M.E. at Berkeley, and three years of U.S. Army service whetted Bob's interest to become an academic, bringing out his natural curiosity and his desire to design and build things. While in his M.S. program he was appointed as an assistant research engineer, and later as an associate research engineer (1946-1960), and worked with Professors J. W. Johnson, R. G. Folsom, John D. Isaacs, W. N. Bascom, and others, under the general supervision of Professor M. P. O'Brien on what was then called the "Waves Project". In 1957, Bob was appointed lecturer in mechanical engineering and in 1960, associate professor in civil engineering. In 1963, he was advanced to the rank of professor in civil engineering and remained in this position until he retired in 1987. As professor emeritus, he came to campus daily (when in town) continuing his assistance to faculty

and students, when requested, in the hydraulics and construction areas through 2014.

Bob's service to Berkeley and the UC system was extensive. For example, he served as assistant dean of the College of Engineering (1963-1972) and acting dean of the college (1972-1973); secretary, Academic Senate (1988-89); and at the systemwide level, he was director of the State Technical Services Program for California (1965-1968). Association with other universities included: visiting professorships (National University of Mexico [1965], Polish Academy of Science [1976], and University of Cairo [1978]); and many special lectures to both U.S. and international universities as well as professional societies, and government agencies.

Bob was a pioneer in the field of coastal engineering and was instrumental in building this specialty area in the U.S. and internationally. He established for the University of California national and international preeminence through his research and publications and through the seminal book *Oceanographical Engineering* (1964) and the book *Earthquake Engineering* (editor, and author of a chapter on tsunamis) — the first major effort in this field. Recognition of his expertise in oceanography resulted in his election to the National Academy of Engineering in 1975. He made major contributions to the solution of many civil engineering problems in the ocean, applying oceanographic knowledge: wave-structure interaction, wave analysis, wave forces on structures, beach erosion control, tsunamis, and ocean current measurement and analysis. He was active in developing techniques and equipment for hydraulic model studies of coastal works. An example was the laboratory model (and field study) of the hydraulic problems for the Diablo Canyon nuclear power generating station in California.

Bob's service to the profession and governmental agencies was exemplary. In the American Society of Civil Engineers (Distinguished Member), he served as a member and chairman of a number of committees in the Waterways, Harbors, and Coastal Engineering Division, including chairman of the executive committee (1974-75) and chairman of the Coastal Engineering Research Council (1978-1992). Examples of other activities have included: consultant to government and industry (since 1964); founder and first president (1972-75) and honorary member (1988), International Engineering Committee on Oceanic Research (ECOR); member, Coastal Engineering Research Board, Chief of Engineers, U.S. Army (1974-1985); commissioner, California Advisory Commission on Marine and Coastal Resources (1968-74); member, Monterey Bay Shoreline Study: Scientific and Technical Advisory Committee, State of California Resources Agency, Department of Boating and Waterways (1985-86); and member, Review Committee, Barrow Beach Nourishment Project, North Slope Borough, Alaska, Science Advisory Committee (1994). Bob has received many awards and honors for both his research and service. Examples include: American Society of Civil Engineers' Research Award (1962), International Coastal Engineering Award (1985); Senior Queen's Fellow in Marine Science, Australia (1977); Outstanding Civilian Service Medal, U.S. Army Corps of Engineers (1985); and the Berkeley Citation, UC Berkeley (1987).

Bob provides an outstanding example of an academic career through his teaching, research, service, and concern for students and staff; he has been a superb role model

for colleagues, students, and staff. One of the contributors to this memorial (Jorg Imberger) provides some comments illustrating Bob's care for students and staff:

".... I first came to UCB as a PhD student in September 1968..... As I stepped into the area of the 3rd floor offices of Professors Hugo Fischer, Bob Wiegel, Joe Johnson, Jim Harder and Hans Einstein, I felt ...an air of excitementin the spirit of engineering. The transition from my life in Australia to life in Berkeley in the late 60's was huge for me, and I would not have survived without the personal support of Joe Johnston and Bob Wiegel. My supervisors, Hugo Fischer, Gill Corcos and Hans Levy provided great intellectual technical support and Joe and Bob ensured that all of us students could somehow reconcile what was going on outside our offices with the demands of our thesis work and with the life we had all come from. For me, the mentoring at both levels, helped me not only to finish my PhD in record time, but also to form a whole new world view, a view that I have lived my life by. There is only one thing to say, thank you Bob, Joe, Hugo, Gill and Hans! I returned to O'Brien Hall in 1976 as an Assistant Professor. Bob Wiegel ensured that I was made to feel welcome and who worked with the Chairman of the Department of Civil and Environmental Engineering, to resolve my transition to a tenured Associate Professorship".

"My own experiences with Bob Wiegel mirror those of other people. Professionally, M.P. O'Brien has been given the credit for laying the foundations of "coastal and ocean engineering", but Bob Wiegel must surely be given the credit for building the house on these foundations. I shared many chats with Bob during my days as an academic at UCB, as his working hours were similar to mine. Bob was a kind, honest and incredibly hard working person, who saw engineering as a way to contribute to America and the World community. Bob, you were successful, your contributions will stand the test of time!"

Bob is survived by his wife of 67 years, Anne Wiegel; a son, John M. Wiegel; two daughters, Carol E. Wiegel, and Diana L. Wiegel; and one grandchild.

Carl L. Monismith
Jorg Imberger
Stephen G. Monismith
2017