



Russell R. O'Neill

RUSSELL RICHARD O'NEILL

1916–2007

Elected in 1975

“For contributions and leadership in the fields of engineering education, maritime cargo handling systems, and marine transportation engineering.”

BY VIJAY K. DHIR

RUSSELL R. O'NEILL, professor and Dean Emeritus of the University of California, Los Angeles (UCLA) Henry Samueli School of Engineering and Applied Science, joined the UCLA engineering faculty in 1946 as one of its first members and remained with the school for more than 60 years. In 1975, he was elected to the National Academy of Engineering “for contributions and leadership in the fields of engineering education, maritime cargo handling systems, and maritime transportation engineering.” He died in Sherman Oaks, California, on October 11, 2007.

Russ was born in Chicago on June 6, 1916, but the family soon moved to Los Angeles where he spent most of his life. In 1934, he entered the pre-engineering curriculum at UCLA, then transferred to UC Berkeley, where he completed his bachelor's (1938) and master's (1940) degrees in mechanical engineering.

In the early 1940s, Russ began a career as a design engineer with Dow Chemical in Midland, Michigan. In 1944, he returned to Los Angeles, where he joined the war effort working at AiResearch. At the end of World War II, he was offered a faculty position at UC Berkeley contingent upon his completion of a

Ph.D., but he decided instead to follow Professor L.M.K. Boelter to the new College of Engineering at UCLA. His first appointment, in 1946, was as lecturer and representative of the UCLA Engineering Extension. Concurrently, he completed the Ph.D. course work

Russ also directed the off-campus master's degree program at UCLA. In the decade following World War II, the program, which offered classes in San Diego, Orange County, Port Hueneme, and at the Naval Ordnance Test Station in the Mojave Desert, was the only master's degree program in southern California outside of Los Angeles. It offered complete graduate programs taught by regular UCLA faculty in residence. Once engineering programs became available at other UC and California State University campuses, the off-campus program became largely redundant, but for nearly a decade, it served a valuable purpose.

Russ' research interests were in maritime cargo handling, logistics, systems engineering, and transportation. His work at UCLA led to the development of a general-purpose computer system for handling the complex operations of cargo handling and other systems, some of the first systems to use computer simulation as a research tool. Russ' work contributed to the modernization of cargo-handling operations and the adoption of standardized containers.

During World War II, the U.S. Navy had encountered many problems and inefficiencies in its handling of cargo. After the war, both the Navy and the commercial shipping industry were looking for better ways to handle the growing volume of cargo. An earlier attempt to introduce containers had yielded poor results. It became apparent to Russ that the entire cargo-handling operation—factory to truck to railcar to ship—should be considered as a system. His research was an important part of a national effort that led to the cargo system in use today in which standard containers are loaded at the factory and unloaded at the final destination. His work also led to the development of a general purpose computer system for handling the operations of complex cargo movement and other transportation systems.

Prior to this innovation, one of the most significant problems had been the involvement of longshoremen in offloading trucks or railcars at the dock, transferring the cargo to cargo nets and then into the holds of ships. The process was reversed on the receiving end. This backbreaking process was not only time-intensive, but was physically hard on the longshoremen. Russ' work thus not only improved cargo-handling efficiency, but also contributed to the well-being of the longshoremen

In 1974, Russ was appointed dean of the UCLA engineering school, a position he held until 1983. Prior to that, he had held several administrative posts, including assistant head of the Engineering Extension, assistant dean of graduate studies, coordinator of the Engineering Executive Program (a professional master's degree program), and assistant director of the Institute of Transportation and Traffic Engineering. He had also been acting dean on two occasions. As an administrator, Russ was known for his ability to develop consensus among diverse groups, and several of his associate deans went on to have successful administrative careers at UCLA and other institutions across the nation.

In 1977, Russ was awarded the UCLA University Service Award, which is given to alumni who have "significantly enriched UCLA and whose efforts have added depth and stature to the reputation of the university." In 1983, he was the recipient of the UCLA Engineering Alumnus of the Year Award in recognition of his "superior achievements [that] brought honor and distinction to the school." Russ retired in 1983, but he remained actively involved in teaching and in the UCLA community. He was recalled to UCLA to teach the core engineering ethics course, "Ethical and Professional Issues in Engineering and Computer Science," which he continued to teach until the fall of 2006, just a year before he died.

Russ was also active in the larger community. For example, he was a member of the Board of Trustees of West Coast University and the Board of Directors of Data-Design Laboratories for many years. And from 1993 to 1996 he taught "The Future of Space" in an Elder Hostel program, which included taking students on field trips to Edwards Air Force

Base. He was also an active board member of Stone Soup, an exemplary after-school program for children. In the professional community, he was a member of Sigma Xi, Tau Beta Pi, the American Society for Mechanical Engineers, the American Society for Engineering Education, and the American Materials Handling Society. He was also was a member of the National Research Council's Maritime Transportation Research Board and on the Board of the Institute of Nuclear Power Operation.

Dr. O'Neill is survived by his wife, Sallie; sons, Richard and John; stepchildren, Stephanie Ballard and Ross Noden; and grandchildren, Margaret O'Neill and Ryan O'Neill.

