MEDALIST FOR 2000

For a distinguished career that pioneered and shaped the exploration of our solar system and for extraordinary contribution to engineering and science.

WILLIAM H. PICKERING

Because of a graduate student project under Theodore Von Karri-lan at the Caltech Guggenheim Aeronautical Laboratory to develop rocket assisted propulsion for aircraft, the concept of the Jet Propulsion Laboratory, or JPL as it is known today, was established in conjunction with the U.S. Army Research and Development establishment in Pasadena. William Pickering joined JPL soon after its inception and later was named the Director of the Laboratory, a position he held until his retirement.

Born in New Zealand in 1910, William Pickering came to the United States to attend the California Institute of Technology and completed his doctorate in 1936; he became a naturalized U.S. citizen in 1941. As the primary focus of his doctoral research, he and others investigated cosmic ray detection and made measurements worldwide, developing sensors and data transmission techniques that led to the field of remote sensing. His research achievements were substantial and in 1944 he moved to JPL, bringing to the Laboratory his expertise in telemetry and telecommunications. As a result of his accomplishments, he was appointed as a Professor of Electrical Engineering at Caltech in 1946, and in 1954 he was named Director of JPL.

Through his vision, guidance and wisdom, and as Director of JPL, he merged the activities of JPL and the Army Research and Development establishment for rocketry and guided missiles into the nation’s premier center of excellence for the robotic exploration of space. This was accomplished with the launch of Explorer 1, the first U.S. space satellite in January 1958, while working with James Van Allen and Wernher Von Braun. Following the success of the first satellite, four more Explorers and two Pioneers were launched through 1959, as JPL then became a part of the then new National Aeronautics and Space Administration, or NASA.

He oversaw the development and flights of the first generation of U.S. spacecraft to the moon and to the planets, using new space technologies and returning new scientific knowledge. These
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spacecraft included the Ranger spacecraft to the Moon (1961 - 1965), the Surveyor spacecraft to the Moon (1966 - 1968), the Mariner spacecraft to Mars, Venus, and Venus/Mercury (1962 -1973), and the groundwork for the Voyager spacecraft to the Outer Planets.

His leadership extended beyond JPL, and he was instrumental in merging the American Rocket Society and the Institute of the Aeronautical Sciences into the American Institute of Aeronautics and Astronautics and served as the first President of the new professional society. He received numerous awards, including the Robert H. Goddard Memorial Trophy, the National Medal of Science, the Japan Prize, and the inaugural Francois-Xavier Bagnoud Aerospace Prize.

A scientist, engineer, academic, administrator, and entrepreneur, he died on March 15, 2004.