

## MEMORIAL RESOLUTION

### ELLIOTT GRAY REID (1900 – 1968)

Elliott Gray Reid died Tuesday, September 24, 1968. He was born in Sycamore, Ohio, on May 29, 1900, the only son of J. Nelson and Etta A. Reid. After graduation from high school in Detroit in 1918, he entered the University of Michigan where he obtained a B.S. degree in Aeronautical Engineering in 1922. Following graduation, he went to the Langley Memorial Aeronautics Laboratory in Virginia. On the basis of research conducted there, he was granted an M.S. degree by the University of Michigan in 1923. He remained at Langley Field for another three years, during which time he gained the reputation of being the most promising aerodynamicist on the research staff. During these years he met Charlotte Katherine Jenkins whom he married on May 15, 1926. On the strength of his work at the Langley Laboratory, he was appointed full Professor of Aerodynamics at Stanford in 1927 at the age of 27 and held this position until his retirement in 1965.

Elliott Reid was a master experimentalist, and his research investigations were always carried out with ingenuity and a meticulous attention to detail. Poor workmanship and wishful thinking had no place in his laboratory, and he worked tirelessly to perfect his methods. Although most of his early experiments were done in the wind tunnel, he also conceived and carried out several flight projects, the results of which led to a better understanding of the then new Prandtl wing theory. Among the many experimental studies that he conducted after coming to Stanford were the following: (1) A study of the wind-induced vibrations of tall chimneys, the results of which led him to be a much sought-after consultant to many factories. (2) A study of the problem of the thrust recovery of the power contained in the "Jet flap" from an airfoil. He so perfected these particular experiments as to be able to show that theoretical predictions (doubted by many practical engineers) were correct. (3) A study leading to the design of the air filters used by the U-2 airplanes to collect radioactive samples at high altitude. In these and other studies, Elliott's devotion and enthusiasm for his experimental work was transmitted to his students, many of whom also spent long hours in the laboratory without complaint. As their reward, they received outstanding training in the art of experimental study., an art that receives all too little attention in some branches of engineering education today.

Elliott Reid's students agree that he was one of the most effective teachers in their experience. His textbook, *Applied Wing Theory*, published in 1932 and noted for its clarity, made this new subject accessible to a generation of American engineers. In the classroom he insisted on a precision of understanding and expression beyond that required by most teachers. His caustic remarks when his standards were not met made his class meetings at first a formidable experience. Later his students came to regard his methods with a kind of exasperated affection, and they remain continually grateful for the sound physical understanding of aerodynamics that he generated. Their affection for the man was reinforced by his loyalty to them and by his interest and pride in their later achievements.

Elliott Reid was active in several professional societies, including the Institute of Aeronautical Sciences of which he was a Founding Member and a Fellow since 1939, and the Royal Aeronautical Society of Great Britain. He served as Chairman of the San Francisco Section of the Institute in 1948-49. In addition to his textbook, his publications included more than thirty technical papers and reports. He was for many years Chairman of the Guggenheim Aeronautics Library Committee and took a very special interest in this library.

He had a keen sense of humor and a ready wit. His peppery remarks on current issues gave clear evidence that, in addition to his devotion to his laboratory, he never forgot to observe the world around him. Throughout his life he was an ardent car buff, an interest derived from his early years in Detroit. He also loved the game of golf, which he played with the same search for perfection that characterized his approach to experimental research. Although never an extremely low handicapper, he was a keen competitor and could always be depended upon to uphold his end of a match.

In addition to his wife, Katherine, he leaves a daughter, Mrs. Timothy Fogel, and three grandchildren of Pueblo, Colorado.

All who knew Elliott Reid will miss his sharp wit and keen perception, but we know that many of his attitudes towards scientific work will live on in the accomplishments of those whom he helped to train.

Donovan H. Young, Chairman  
John R. Spreiter  
Walter G. Vincenti