



SAUL KAPLUN

1924 - 1964

Saul Kaplun, senior research fellow in aeronautics, died of a heart attack on February 13.

Dr. Kaplun was born in Lwow, Poland, in 1924. He became a naturalized citizen of the United States in 1944 and served in the United States Navy in 1944-46. He spent his entire academic life — a total of twenty years — at Caltech, where he received four degrees. After his PhD in 1954 he became a research fellow in aeronautics and was made a senior research fellow in 1957.

He is survived by his father, Morris J. Kaplun, of New York.

A memorial ceremony was held in Dabney Hall on February 27, with eulogies spoken by President DuBridge and Dr. Clark B. Millikan. In Dr. DuBridge's words, "Saul Kaplun had a brilliant analytical and creative mind and made many profound and original contributions to the theory of fluid mechanics. He was an applied mathematician of extraordinary ability and had already won wide and admiring recognition for his work."

Dr. DuBridge mentioned that Saul Kaplun was modest and retiring. His close friends had a profound affection for the man as well as the deepest admiration for the scientist.

Dr. Millikan, professor of aeronautics and director of the Graduate Aeronautical Laboratories, spoke on behalf of Saul Kaplun's Caltech colleagues and former students. "Saul Kaplun's very special hallmark as a scientist," said Dr. Millikan, "was his unusual intuition. He lived with a problem till he 'saw' the solution. This enabled him to understand the essence of some fundamental problems but also made it difficult for others to understand his work. His work could in general not be explained by discursive reasoning; one had to make an effort to share his intuitive thinking."

Dr. Millikan spoke about the very high standards Saul Kaplun had set for himself. He was reluctant to publish anything he considered incomplete or not sufficiently fundamental. "Few publications bear his name as author," Dr. Millikan said; "however, in very many publications by

others the author expresses his thanks to Saul Kaplun for having contributed some fundamental ideas to the work, or states that he has used methods due to Kaplun.

"By now his work has won world-wide recognition among specialists. He was invited to give a lecture at the XIth International Congress on Theoretical and Applied Mechanics to be held in Munich, August 30 to September 5, 1964. Some of his colleagues will try to reconstruct this lecture from the notes Saul Kaplun left behind and the lecture will be delivered in his name."

As an example of Saul Kaplun's work, Dr. Millikan singled out his research on the theory of slow motion of a viscous fluid. Very little fundamental progress had been made on this important problem since Stokes' original research about a hundred years ago. Various difficulties — in particular, the famous Stokes paradox — were inherent in Stokes' original work. Kaplun's profound analysis of the problem explained the nature of the difficulties and gave the method for solving the problem. His ideas were so profound that they transcended the original problem; they are now recognized as fundamental mathematical ideas of wide applicability. Here, and in many other instances, Saul Kaplun's work played a decisive role in the development of applied mathematics at the California Institute.

Morris Kaplun spoke a few words of thanks for the tribute to his son. He spoke of his son's great devotion to Caltech. Saul Kaplun never spent for himself the money he had received from his family; instead he left a large bequest to the Institute. "In appreciation of my son's devotion to his Alma Mater," the elder Kaplun said, "I intend to add to this bequest in order to provide a suitable memorial in the name of Saul Kaplun. It will take the form of a fellowship, a reading room, and part of a building for study and research in the field of applied mathematics, the field in which Saul worked so devotedly till the day of his untimely death."