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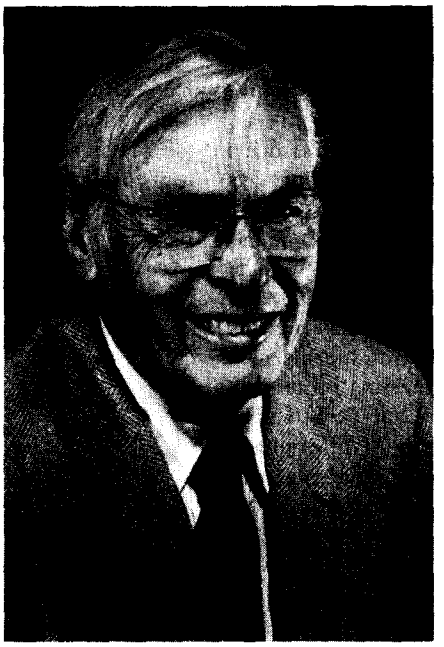
Professor Ralph A. Seban on his 75th birthday



PROFESSOR Ralph A. Seban will celebrate his 75th birthday in May of this year. On this occasion, it is a great pleasure to recount and honor his numerous achievements in the field of heat transfer.

Professor Seban was born in Los Angeles, California, on 11 May 1917. He obtained a Bachelor's degree in 1938, a Master's degree in 1940, and a Ph.D. in 1948, all in mechanical engineering from the University of California at Berkeley. He joined Stanford University as an Assistant Professor (1941–44), and the University of California at Berkeley in 1946. He retired as an Emeritus Professor from Berkeley in July 1986. He continues to be an active member of the heat transfer community as evidenced by several publications since his retirement.

Professor Seban taught heat transfer and thermodynamics, and performed state-of-the-art research, which assisted the Berkeley heat transfer group to become a leading heat transfer research center in the U.S. From 1958 to 1964, Professor Seban served as the Chairman of the Heat Power Systems Division at Berkeley, and the Chairman of the Mechanical Engineering Department from 1965 to 1969. Professor Seban was also a member of the Executive Committee of the ASME Heat Transfer Division (1967–72), Chairman of the Heat Transfer Division (1970–71), and Senior Technical Editor for the *ASME Journal of Heat Transfer* in 1971. In 1970, he became a Fellow of ASME, and an Honorary Member in 1977. He became a member of the U.S. National Academy of Engineering in 1978. Professor Seban received the ASME Heat Transfer Division Memorial Award in 1964, the ASME–A.I.Ch.E. Max Jakob Memorial Award in 1980, and the ASME Heat Transfer Division's 50th Anniversary Award in 1988.

Throughout his career, Professor Seban has maintained the highest quality in his research endeavors. He made pioneering and highly significant contributions in freezing and melting, boundary layer heat transfer, heat transfer in separated flows and wall jets, turbulent heat transfer, laminar and turbulent film condensation and evaporation, wavy falling liquid films, infra-red surface radiation, reactor safety thermal-hydraulics, and coupled heat and mass transfer analyses in liquid films. During the early stages of his career, he was extensively involved in analyses of the rates of ice formation and the prediction of freezing rates. Later, he initiated and developed fundamental and pioneering works on the heat transfer to turbulent boundary layers in high velocity flows as well as classical contributions related to internal flows. In the mid-1950s, he carried out pioneering works on film condensation with turbulent flows. During the 1960s, he undertook fundamental studies related to

radiation heat transfer, as well as heat transfer and fluid flow in cavities. In the 1970s, he studied transport phenomena in thin falling liquid films, including evaporation and condensation, gas absorption, and wavy flow analysis. His research on thin falling films encompassed both experiments and analyses, which have become standard references. In recent years, he has been investigating the heat transfer during the quench process that occurs during reflooding, as well as the heating of turbulent water jets discharged into steam environments. He has also been involved in further investigations of thin falling films and phase change phenomena.

Professor Seban has been recognized by his students for being an outstanding mentor, who brings his unique physical understanding, insight, and experience to bear on the details of research efforts. He has been extensively successful in directing his graduate students and developing their individual talents and capabilities. Professor Seban's research has from its inception created a steady stream of students who have become leaders of the engineering profession, both in industry and in the academic field. This is partially reflected in the following list of graduate students who have completed their doctorate with Professor Seban: W. Goldsmith, H. Gordon, R. M. Drake, W. H. Giedt, S. Levy, J. P. Hartnett, S. Scesa, A. M. Levy, J. R. Kliegel, R. C. Eberhart, A. F. Emery, L. H. Back, A. A. McKillop, J. Fox, A. F. Mills, S. M. Cho, P. Payvar, M. F. E. Dillenius, G. L. Caldwell, J. R. Bergquam, K. R. Chun, L. Slegers, E. Chin, F. S. Felicione, D. Rafiinejad, H. B. Mason, A. K. Abhat, Y. Kim, A. Faghri, M. Kaviany, I. C. Hsu and A. Kharraazi.

Not only is Professor Seban versed in the field of heat transfer, but in the diverse subjects of literature, history, and economics. He is also a devoted family member who has, with his wife Jean, raised five children. As always, Professor Seban is full of creative ideas and energy. This remarkable continued enthusiasm affects all those who interact with him.

On the occasion of his 75th birthday, it is a great pleasure for his students, colleagues, and friends all over the world to honor his distinguished and pioneering achievements, and to wish both Ralph and his wife Jean good health and happiness.

A. FAGHRI
R. GREIF
J. P. HARTNETT
W. J. MINKOWYCZ
C.-L. TIEN