

**RESOLUTION ON THE RETIREMENT OF  
KENNETH N. ASTILL, PROFESSOR OF ENGINEERING**

May 6, 1991

*Adopted by the Faculty of Arts and Sciences  
and placed in the Archives of  
Tufts University*

*Professor Kenneth N. Astill grew up in Westerly, Rhode Island. Having won the State Chemistry Contest while in high school, he dreamed of majoring in chemical engineering at the University of Rhode Island but, faced with all those sophomore labs, chose to switch his major to mechanical engineering, to the later good fortune of the Tufts Mechanical Engineering Department. After three years and a Bachelor's Degree in 1944, he headed west to the Chrysler Corporation in Detroit and to a Master's Degree at its Institute of Engineering, while working in their engineering facility on the improvement of aircraft and automobile performance.*

*Ken became interested in a career in engineering education and in 1947 he joined the faculty of Tufts as an instructor in mechanical engineering, with the then standard teaching load of 21 contact hours a week, mostly running laboratories. In 1948, he married Patricia Lamb, whom he had met while working at Chrysler Corporation. During these early years at Tufts, Ken found the time from his busy schedule to complete an MS at Harvard and then a PhD at MIT. He introduced courses here at Tufts that fundamentally altered the curriculum. Working with General Electric led to the introduction of a course on steam turbines that has evolved into the current course on power and propulsion. Concern with thermal problems led to the first course at Tufts in heat transfer, for which the Department of Mechanical Engineering now offers an additional two advanced courses. Under his influence, the laboratories were drastically changed, in ways as to influence laboratory practice in engineering schools throughout the country. Ken also established the first computer-related course at Tufts, which evolved into what is now, thirty years later,*

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Engineering Science 101, Numerical Methods. That course also led to his writing with a colleague at the University of Michigan a textbook, very early in the development of computers, Numerical Algorithms - Origins and Applications, published by Addison Wesley in 1970. Now 44 years later in his career, Ken Astill can look back on promotions to assistant, associate, and to full professor of mechanical engineering, to chairing the Mechanical Engineering Department, and to nine years as the Associate Dean of Engineering. The years from 1980-1989 as Associate Dean were especially fruitful as he worked with Dean Frederick Nelson to strengthen and expand the College of Engineering in a significant and lasting manner.

Professor Astill is an internationally known scholar, particularly in the fields of flow stability and heat transfer in rotating systems. His expertise has influenced Tufts in many ways. One is the establishment of international study programs. In 1968, Ken went on sabbatic leave to the newly opened University of Sussex in England. An important consequence of his time abroad was the relationship that was established between Tufts and the School of Applied Sciences at Sussex. There have been many exchanges of faculty through the years and in 1970 we sent our first engineering students to study in England. This program is now in its 21st year with more than 150 of our undergraduate students having studied at the University of Sussex.

Sabbaticals have been important for Professor Astill. While at Sussex and later at the University of Leeds, he extended his longstanding work with a fluid flow phenomenon known as Taylor vortex flows. At Leeds in 1976 he and a colleague conceived a plan to bring people together who had a common research interest in this subject. Through their mutual efforts the first "Taylor Vortex Working Party" was held at Leeds in 1979, the Second at Tufts in 1981, and the most recent, of what is now an established international conference, in 1989 in Brussels with 65 participants from 12 countries. In recognition of his regional, national and international contributions to the profession of engineering Ken has been honored by being made a Life Fellow of the American Society of Mechanical Engineers.

*Any resolution regarding Ken Astill absolutely must mention features that have endeared him to his colleagues everywhere -- his affection for people, and his nimble wit, which has made him famous on campus as a master of snappy repartee. From Anderson Hall to the round table at the Faculty Dining Room, conversations with Ken are noted for their intelligence, wit, and friendly laughter.*

*Above all Ken is a family man. He and his charming hospitable wife, Pat, are a couple whose company we savor. They have two sons, John and Robert. Their future plans include staying on in Winchester with summer holidays in their Rhode Island home, travel, and, much to our pleasure, continued strong contact with Tufts and Department of Mechanical Engineering. The colleagues of Ken Astill, in the Department of Mechanical Engineering and throughout Tufts University, thank him for a job well done and wish him good health and cheer in the exciting years that lie ahead.*

*I move that this resolution on the retirement of Kenneth Astill be spread on the permanent record of this faculty and that a copy be sent to Ken Astill.*

*Respectfully submitted*

*Behrouz Abedian  
Robert Greif  
Lloyd Trefethen*

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