IN MEMORIAM

BYRON ELLIOTT SHORT

Byron Elliott Short was born on December 29, 1901, in Putnam, Texas, the son of Samuel Washington Short and Florence Gurtrude Sublett Short. After attending elementary schools at Scranton, Sagerton and de Leon, he graduated from de Leon high school in 1919 and came to The University of Texas in 1921. During his student years he met Carl J. Eckhardt, and they became lifelong friends, working together at the U.T. power plant and as faculty in the Mechanical Engineering department. Byron completed his B.S. in Mechanical Engineering in 1926 and his M.S. in Mechanical Engineering in 1930. In 1935 he entered Cornell University, where he received the Master of Mechanical Engineering degree in 1936 and a Ph.D. degree in 1939 working on heat transmission and thermodynamics. While at Cornell he received the Sibley Fellowship in Mechanical and Electrical Engineering.

Professor Short's industrial experience spanned many years, mostly in the summers from 1926 through 1948 working for The Texas Company (now Texaco, Inc.) and The University of Texas power plant. From 1948 until his retirement he was a consultant with the Texas Gulf Sulfur Company, Oak Ridge National Laboratory, U.S. Army Corps of Engineers, Ford Motor Company, Svedrup and Parcel, Atomics International, Gulf States Tube Corporation, and General Atomic. Through all of his external interests, however, he never compromised his main love, which was teaching.

While a graduate student, Byron began his teaching career in 1926 as an Instructor in Mechanical Engineering. He served as an Adjunct Professor between 1929 and 1935, primarily teaching thermodynamics. Between 1935 and 1936 he held a position as Teaching Fellow at
After receiving his Ph.D. from Cornell in 1936, he returned to The University of Texas as an Associate Professor, and in 1939 was promoted to Professor of Mechanical Engineering, a position he held until retirement in 1973. Upon retirement he was given the title of Professor Emeritus.

In addition to his regular and continuous classroom teaching, Dr. Short was in charge of the Heat-Power and Fluid Mechanics Laboratory in Taylor Hall from 1930 to 1965. His very close friend, Dean W.R. Woolrich, gave him complete control of all equipment maintenance and use, new purchases, and allocation of space in this laboratory. With a keen memory, he always knew where every piece of equipment was located and who was using anything belonging to this laboratory.

During the 1940's and 1950's the Mechanical Engineering Department operated with a rotating Chairmanship among its full Professors in which each would serve a two-year term. Professor Short served terms from 1945 until 1947 and again from 1951 until 1953. Between these assignments he served as acting Dean of the College of Engineering from 1948 through 1949 and during the summer of 1955.

Intercollegiate athletics was always an important part of Byron's life. He seldom missed a baseball, football or basketball game or other sports event held on campus. This intensive interest led to his service as Chairman of the U.T. Intercollegiate Athletics Council from 1945 through 1948.

Honor societies that recognized his outstanding achievements were Tau Beta Pi (President of Alpha Chapter of Texas, 1927-1928), Pi Tau Sigma, Sigma Xi and Phi Kappa Phi.
(President of U.T. Chapter, 1972). He was continuously active in each group and never failed to express his deep appreciation for being selected.

When Byron returned from Cornell in 1939, he was the only member of the Mechanical Engineering Department faculty with a doctoral degree, a distinction he held for many years. He was immediately appointed Graduate Advisor in 1939, where he attracted many outstanding young scholars. Most of the doctoral students wanted to work under him since he had, along with this advanced degree, a considerable amount of research money and many new ideas for research topics. His term as Graduate Advisor lasted for 24 years. In addition he also served on The University Faculty Council from 1945 until 1949.

Most of the undergraduate students in mechanical engineering had Dr. Short for their basic thermodynamics course, where he lectured in Taylor Hall 138 underneath a working demonstration model of a slide-rule (six feet in length). His own oversized slide rule (24 inches) and great mathematical skill always left many students in awe; nevertheless, he was always available for student consultations in his office, which occupied a corner in the non-air-conditioned Thermodynamics and Fluids Laboratory. In his later years he mastered computer programming and became adept at using the FORTRAN language to write codes for scientific computations.

During his 47 years at U.T., Dr. Short taught thousands of students and is remembered as being a conscientious and dedicated member of the faculty, thus it is impossible to cite all of the successful ones. He supervised 23 Master’s theses and 12 Ph.D. dissertations. He also served on many University committees and even more College committees plus numerous continuous committee assignments within the M.E. Department. A partial listing of the important
committee assignments given to Professor Short by The University and the College is shown below.

Member, Sub-Committee for Intercollegiate Athletics for Women
Executive Committee, Scottish Rite Dormitory, University of Texas
Board of Directors of Scottish Rite Educational Association
U.T. Austin Committee of Counsel on Academic Freedom and Responsibility, 1969
Degrees and Courses Committee, College of Engineering, 1939-1942, 1961-1963, 1969
Chairman, Engineering Building Committee, 1964
Tau Beta Pi, Faculty Advisor
Member of Aerospace Engineering Graduate Faculty
Board of Grants, 1962-1963
Engineering Foundation, 1956-1963
Graduate Student Programs Committee, Graduate School, 1958-1962
Dean's Committee, College of Business Administration, 1959-1960
Engineering Publications Committee, 1930-1940, 1957
Chairman, ORSORT Study Proposal Committee, Engineering and Sciences, 1956
Graduate Legislative Council, 1956
Nuclear Engineering and Reactor Committee, College of Engineering, 1953-1956,
Chairman, 1956
Graduate Council, 1951-1957
Fellowship and Scholarship Committee, Graduate School, 1949-1959,
Chairman, 1950-1956
University Chancellorship Advisory Committee, 1950
Petroleum Engineering Budget Council, 1949-1950
Engineering Research Committee, College of Engineering, 1941-1949
Junior Accrediting Committee, College of Engineering, 1940-1945
Engineering Scheduling Committee, College of Engineering, 1940-1944
University Committee on Admission of Transfer Students, 1939-1944
University Discipline Committee, 1931-1939
Engineering Library Committee, 1930-1934

In addition, Byron was instrumental in the formation of the Engineering Mechanics Department in 1947 and served on the Dean's committee to study the need of a meteorology program in the College of Engineering. He was also affiliated with the Defense Research Laboratory during its early years. When he accepted a committee assignment he was extremely diligent, never missing meetings and always participating fully in the deliberations.

He belonged to a number of professional societies including The American Society of Mechanical Engineers (Life Member and Fellow), the National Society of Professional Engineers (Life Member), The American Society of Engineering Education (Life Member) and The Texas Society of Professional Engineers (Life Member). He served as National Vice-Chairman of the American Society of Engineering Education during 1946-1948 and served on a number of committees at the national level for each organization. Dr. Short's fields of specialization include: heat transfer in shell and tube exchangers, condensing vapors of tube banks, pressure drop in baffled tube bundles and specific heats of foodstuffs and solutions at low temperatures. He was considered an international authority on shell and tube heat exchangers. His publication record contained numerous research publications, a patent and six books. The books are: *Power Engineer Handbook*, Texaco, 1927; *Flow, Measurement and Pumping of Fluids*, University Lithoprinters, Norman, Oklahoma, 1934; *Engineering Thermodynamics* with

Some of the more important awards and honors in addition to the election to Fellow grade in two national organizations include being voted the Outstanding Alumnus of the U.T. Department of Mechanical Engineering in 1995 and the election to Distinguished Graduate of the U.T. College of Engineering in 1996, just prior to his death. As a student he was a member of the Ramshorn Club fostered by Dean Taylor. He received a Certificate of Commendation from the South Texas Section of ASME in 1954 and was made an Honorary Member of the Process Heat Transfer Society in 1964. His work was cited in several textbooks plus a section in W.R. Woolrich's book *Men of Ingenuity, From Beneath the Orange Tower*. Biographical listings included: *Who's Who in America*, *Who's Who in the South and Southwest*, *Dictionary of International Biography*, *Who's Who in Engineering and American Men of Science*. Two endowments have been made in his name: The Byron E. Short Endowed Presidential Scholarship in Mechanical Engineering, begun in 1993 by the M.E. Class of 1940, and The Byron E. Short Lecture Series Endowment, begun in 1990.

Professor Short donated a large amount of his time, talent and finances to the Ex-Students Association, Texas Exes Clubs, Executive Council and special volunteer work. For many years he spoke to ex-students at various locations during March 2 (Texas Independence Day) meetings. He also arranged meetings of Texas Exes at the annual meetings of ASME and supported financially such activities as athletic banquets and the general scholarship fund. He was a member of The First Baptist Church of Austin, where he was Chairman of the Board of Deacons
and Chairman of the Downtown Bible Class. He was a member of the Austin Kiwanis Club, a Life Member and Master, University Lodge No. 1190 A.F. and A.M., District Deputy Grand Master, 50th Masonic District, 33rd, Scottish Rite, Austin Consistory (1st Vice-President) Scottish Rite Educational Foundation and Vice-Chairman of Executive Committee who controlled the Scottish Rite Dormitory for Girls at The University of Texas. He served as Kych and Commander, Colorado Commandery No. 4, and District Deputy for both York Rite Chapter and Council; Sovereign, St. Austin Conclave, Red Cross of Constantine, Member of Ben Hur Temple. He was a member of the Patrick Henry Chapter of Sons of American Revolution; President, Fleur-de-Lis Chapter of the Huguenot Society, and President of the Huguenot Society of Texas.

He married Mary Jo Fitzgerald on June 1, 1937 and had one son, Byron Elliott Short, Jr., and one daughter, Mrs. James L. (Mary Aileen) Gauntt. Professor Short died on October 31, 1996, at age 94.
The Memorial Resolution was prepared by a special committee consisting of Professors H. Grady Rylander, Jr. (Chair), Howard E. Brown, and J. Parker Lamb.