DOCUMENTS OF THE GENERAL FACULTY

REPORT OF THE MEMORIAL RESOLUTION COMMITTEE FOR
HENRY GRADY RYLANDER JR.

The special committee of the General Faculty to prepare a memorial resolution for Henry Grady Rylander Jr., professor emeritus, mechanical engineering, has filed with the secretary of the General Faculty the following report.

Sue Alexander Greninger, Secretary
The General Faculty

IN MEMORIAM
HENRY GRADY RYLANDER JR.

Dr. H. Grady Rylander Jr., professor emeritus and former chair of mechanical engineering, passed away on May 22, 2010.

Grady, as he was known to friends and colleagues, was born August 23, 1921, on a farm in Frio County, Texas, near the town of Pearsall, to Julia McFadden Rylander and Henry Grady Rylander. He graduated in 1939 from Pearsall High School, where he lettered in football, tennis, and track, and played guitar in the orchestra. He entered the University of San Antonio (now Trinity University) in 1939 and transferred in 1941 to The University of Texas at Austin, where he was elected to the Pi Tau Sigma and Tau Beta Pi honor societies. He was awarded the B.S. in mechanical engineering in June, 1943.

Following graduation, he was employed by the Westinghouse Electric Corporation in Lester, Pennsylvania, where he conducted fatigue tests of gas turbine blades and carried out research on design of bearings and lubrication systems for aircraft gas turbines. It was early during this period, on September 24, 1943, that he married his high school sweetheart and UT classmate, Grace Elizabeth (Betty) Zirkel, in Norwood, Pennsylvania.

In September of 1947, Grady accepted Dean Willis Woolrich’s offer to join the faculty at UT as an assistant professor of mechanical engineering. He taught courses in heat/power engineering, machine design, and tribology (the science of bearings and lubrication), while at the same time working on his M.S. degree, which he received in 1952. In 1953, he was promoted to associate professor. During the period from 1949 to 1956, Grady held summer positions with Fargo Engineering Corporation (designing heavy machinery for the hydroelectric dams on the Lower Colorado River), UT’s Defense Research Laboratory (now ARL), and Magnolia Petroleum Company.

Grady was granted a leave of absence from UT in 1961 to pursue a Ph.D. degree at Georgia Institute of Technology, where he carried out his dissertation research on characteristics of multiphase lubricants under the sponsorship of the National Science Foundation. He returned to full-time teaching and research at UT in 1963 and received his Ph.D. from Georgia Tech in 1965. In 1968, he was promoted to the rank of professor of mechanical engineering. Throughout his career, a major thrust of Grady’s research was bearing design and lubrication. He continued to teach undergraduate and graduate courses, as well as professional short courses, in this area and to consult with numerous corporations until his retirement in 1997. During the course of his career, Grady supervised sixty-one masters and thirteen Ph.D. students, published 120 papers in journals and conference proceedings, edited or co-edited eight books, and was inventor or co-inventor on four patents.

In 1970, Grady began a research collaboration with Dr. Herbert Woodson, chair of electrical engineering, and mechanical engineering (ME) graduate student, William Weldon, on the design of homopolar generators. These flywheel-type devices store large amounts of energy and discharge high-powered short duration pulses of electricity. This initiative culminated in the founding, in 1977, of the Center for Electromechanics (CEM), which Grady directed until 1985. During this period, CEM grew into a world-class research unit focusing on the
development of pulsed electric power and inertial energy storage machines and their military, scientific, and industrial applications.

Grady served as associate chair of mechanical engineering from 1974-76 and was appointed chair in 1976. He served in this capacity for ten years, during which time the ME department saw many positive changes. Among the most significant were the department's move to its new home in Engineering Teaching Center II (ETC), the completion of the Electromechanics and Energy (EME) Building and the Nuclear Engineering Teaching Laboratory (NETL) at the Balcones Research Center (now the Pickle Research Campus), and major growth and diversification of the faculty. During Grady's tenure as chair, undergraduate enrollment grew from 577 to 1,108, graduate enrollment grew from 146 to 257, and research funding increased from $1.35 million to $5.24 million. Under his leadership the department achieved the highest ratings in its history for the quality and effectiveness of its doctoral program, ranking sixteenth nationally and first in the South and Southwest in the prestigious Jones-Lindzey Report of the American Council on Education and the National Research Council.

Grady was the recipient of many honors, both local and national, during his career. He held several honorary professorships, including the Jack Josey Professorship in Energy Studies (1978), the J.C. Walter, Jr. Professorship (1980-81), the E.P. Schoch Professorship (1981-83), and the Joe J. King Professorship (1983-85). He received the Joe J. King Engineering Excellence Award in 1979 and was elected Fellow of the American Society of Mechanical Engineers (ASME) in 1980. In 1985, he received the Leonardo da Vinci Award from ASME's Design Division.

A memorial to Grady Rylander would not be complete without mention of the things, both personal and professional, that he held most dear. Grady was extremely proud of his wife, Betty, and their four children, Grady III, Gary, Betty Grace, and Martha, who between them earned thirteen degrees from UT Austin. His grandchildren and their spouses have continued the burnt orange tradition. Without exception, they have been outstanding students and the name Rylander has come to symbolize not only academic excellence but exemplary character and dedication to service as well.

Grady was loved and admired by all those who knew him for his practical insight, personal warmth, and caring mentorship. This legacy is best captured in the following quotes from his students and colleagues:

Those of us who were taught by him, worked with him, and were inspired by him will be forever grateful that we had the honor to know him.

--Dr. Keith Tolks, former student (B.S. ME 1971, Ph.D. ME 1980)

Dr. Grady Rylander and Dr. Leonardt Kreisle both were more than teachers; they were examples of how to live in this world and how to contribute to a positive manner. For years I have had a collage on my desk to the three most influential teachers in my life: Dr. Grady, Dr. Leonardt, and my wife, who was a teacher also. I am so blessed to have had each of them in my life.

--John W. Warner, former student (B.S. ME 1965, M.S. ME 1970)

Many years ago, when Grady retired, at least for the "first" time, I, with my newly minted Ph.D., was asked to give a speech. Some little voice told me to do something other than the usual speech, which would have been to recite Grady's long list of accomplishments. Instead, I decided to talk about the man, what he meant to me, and what I admired about him. Now, in mechanical engineering at The University of Texas there are plenty of smart, accomplished people around. So, even though Grady was smarter and more accomplished than most, it wasn't what made him special to me. Instead, I spoke about Grady's perspective, and how I admired what he put first in his life, which was his family. I spoke about how he meant so much to so many people, helping people along the way, and leading by example, which was so evident when you considered the Rylander family as a whole. Virtually every one of us can tell similar stories about kind and generous things that Grady did for us. Grady did not achieve the things he did by climbing over the backs of others. Instead, he did great things and brought people along with him, always sharing the rewards. Grady believed in hard work, but he didn't believe in working too hard if it took too much time away from his family. How he
accomplished all he did, as well as being a great father, and then to mean so much to many of us as well, I will never know.

--Dr. Don T. Berry, Lecturer in Mechanical Engineering (B.S. ME 1976, M.S. ME 1983, Ph.D. ME 1989)

Some people are larger than their individual selves, and Grady was certainly one of those. Not only was he highly successful at the University through teaching, research, and administration, but he was also known for his extra-university interests. Invariably, in meeting with him, the conversation led to Rockport and fishing, his ranch and tractors, and above all, his family. Through his family and his long association with the University, he has left a lasting legacy. I feel fortunate to have worked with him and to have been associated with several of the Rylander family.

--Dr. Gary C. Vliet, professor emeritus of mechanical engineering

Grady was a great colleague, boss, and friend, and he had an almost Lincoln-esque gift of gab. When he was department chair, every meeting was a combination of business and chewing the fat. Whenever I had a matter that required his attention, I always asked for thirty minutes on his schedule: fifteen minutes to address the problem at hand and fifteen to listen to his stories, which were always entertaining. The department faculty and their families were all family to Grady. Our annual departmental picnics at his ranch in Liberty Hill were events that everyone, young and old, looked forward to with great anticipation. My three kids, now in their thirties and forties, still talk about their adventures at the Rylander ranch. Grady remembered every one of them and asked about them every time he saw me. Grady was also a great mentor. He taught me a lot about teaching, about practical engineering, and about priorities in life. He took his job very seriously, but made it his business to be home in time for dinner with his beloved Betty and their four wonderful children every single night, come hell or high water. My fond memories of Grady and my respect for him as a mentor and role model will be with me forever.

--Dr. Philip Schmidt, professor of mechanical engineering

Dr. Grady Rylander Jr. was a mainstay of the Department of Mechanical Engineering during the period of its history when it evolved from a primarily regional undergraduate institution to a research institution of high national standing. As one of the earliest ME faculty to earn a Ph.D., he helped usher in the “doctoral” era of mechanical engineering education at UT. His leadership during a period of major expansion and his initiation of the center-of-excellence approach to research collaboration laid the foundation for the department’s continued growth and development in the 21st Century. Most important of all, Grady was the quintessential model of a teacher and mentor. His memory will be honored by all who knew him.

This memorial resolution was prepared by a special committee consisting of Professor Philip S. Schmidt (chair) and Professors Emeritus Gary C. Vliet and Kurt M. Marshak.

Distributed to the dean of the Cockrell School of Engineering, the executive vice president and provost, and the president on January 13, 2011. This resolution is posted under “Memorials” at:
http://www.utexas.edu/faculty/council/.