True McLean

January 22, 1899 — June 10, 1994

True McLean was born in Richmond County, New York on January 22, 1899. Following his graduation from Staten Island Academy in 1916, he entered Cornell University that year as a student in the Department of Electrical Engineering, which at the time was part of the Sibley College of Mechanical Engineering, but his studies were interrupted by service in the Navy during World War I. When the war was over he returned to Cornell and received the degree of Electrical Engineer in 1922 from the newly established School of Electrical Engineering. Upon graduation, True went to work in New York City for the Western Electric Company in their development and engineering-research department that eventually became the Bell Telephone Laboratories. In 1923, he was persuaded by Professor William C. Ballard to return to Cornell to take an instructorship in the School, a decision that marked the beginning of a forty-three year academic career at Cornell. True was an Instructor for seven years, was appointed as an Assistant Professor in 1930, became an Associate Professor in 1944, and attained full professorial rank in 1946. He retired as Professor Emeritus in 1966.

Throughout his teaching and industrial career, Professor McLean's principal interests were in the electromagnetic communications field and associated electronic circuitry. He taught courses in communications engineering theory, advanced communications laboratory, and elements of acoustical and radio engineering. He was particularly effective in the classroom because of his extensive practical engineering background and developmental experience in these fields. During World War II years, True was deeply involved in the College of Engineering instructional program for service personnel, but in this same period he found time to assist Professor Elmer S. Phillips, of the Department of Communication in the College of Agriculture and Life Sciences, in the production of high-quality long-playing audio disks and instructional motion-picture films for the War Department. Throughout his career he was a consultant on radio-engineering problems for a variety of companies and organizations. In 1949-51, he had a particularly exciting task at Brookhaven National Laboratory where he made important contributions to the design of a high-power radio-frequency power amplifier that was to be used as the electric drive for their large proton synchrotron.

In the field of audio engineering, True had a very interesting assignment as a technical consultant to the Cornell Ornithology Laboratory when he assisted Professors Paul Kellogg and Arthur Allen in the recording of bird songs. True, together with Elmer Phillips, Bill Ballard, and Arthur Stallman of the well-remembered downtown-Ithaca audio electronics establishment, converted an abandoned Greyhound bus into a portable audio-control studio

that was invaluable in recording the popular long-running WHCU program "Know Your Birds." That bus also did double duty as the audio power source for the early public-address system for football games in Schoellkopf Stadium.

In 1923, Professors Bill Ballard and B.K. Northrop obtained a standard broadcast license for Ithaca's first radio station, then called WEAI ("We Educate And Instruct"). On his return to the campus that year, True joined the station and began a long association with the radio broadcasting field. From 1928 to 1955, he was Engineer, and then Chief Engineer of the Cornell Radio Station WHCU (and its predecessors WEAY and WESG) with responsibilities for the design and supervision of the construction of all its AM and FM transmitters. In that period he also was a consultant in the establishment of an FM relay network that brought the New York City classical radio station WQXR broadcasts into Ithaca.

On his last sabbatic leave in 1963-64, True pursued one of his major interests, precision in instrumentation. He had all of the standard instruments of the School calibrating room rechecked at the Bureau of Standards, and visited the Bureau at Washington, D.C. and at Boulder, Colorado to confirm his operation. For many years after his retirement, True would return to Phillips Hall in the summer and recheck all of the instruments in the standards room. A familiar sight in the laboratory was to see him looking over the shoulder of a student (or a professor!) who would be about to connect an instrument in an experiment. Invariably, True would take out a small screwdriver and proceed to adjust the instrument!

True enjoyed soaring sail planes and flying his small private airplane, a single-engine Lascombe 8-F. He was an official of the National Soaring Championship in Elmira, New York in 1963, and together with his long-time friend and fellow aviation enthusiast, Professor Arthur Muka of the Department of Entomology, he worked on the barograph certification for regional and national sailplane competitions in Elmira. He flew his plane in New York State for many years and would frequently surprise an invited guest in Ithaca by taking him to lunch in Syracuse! After retiring and moving to Florida, True joined the Naples Squadron of the Civil Air Patrol and participated in their twilight flights (the Sundown Patrol) along the Gulf Coast looking for pleasure boats in trouble. He engaged in this activity until he was forced by age (at 87!) to give it up, which he did reluctantly. True often said that his hobbies of astronomy, flying, and music had profound impacts on his professional and teaching careers. Astronomy and flying combined with radio engineering led him to develop a popular course in radio aids to navigation. Astronomy and radio engineering inspired him to take a deep interest in the absolute determination of time. His appreciation of music helped him in acoustics and radio broadcasting.

True was a member of the American Institute of Electrical Engineers and the Institute of Radio Engineers before the two organizations were combined into the Institute of Electrical and Electronic Engineers (IEEE). In 1965, True was named a Fellow in IEEE "for contributions to engineering education and research in acoustics, communication, and electrical measurements." He was a licensed professional engineer in New York State, and served two successive terms as president of the Ithaca Chapter of the New York State Society of Professional Engineers. From 1959 until his retirement, he was a member of the Board of Directors of the Cornell Research Foundation, the organization responsible for university patent activities. He was a member of the honorary societies Eta Kappa Nu and Sigma Xi, and of the American Association for the Advancement of Science, and the Civil Air Patrol.

When True was an engineering undergraduate, he met Katherine Blanche Brooks, a student in the Cornell School of Home Economics. They were married on July 30, 1921 in Ithaca, New York, where they spent the majority of their seventy-three years of life together. When True retired they took up residence in Florida. He is survived by his wife who lives in Naples, Florida; a daughter, Lorna L. Craig and her husband David R. Craig of Naples, Florida; a son, Douglas B. McLean and his wife Jean of Marco Island, Florida; and two grandsons, David R. Craig, Jr. and his wife Jodi of New Boston, New Hampshire; and Douglas W. Craig of Locust Valley, New York.

True McLean will be long remembered as a conscientious teacher, a dedicated engineer, a respected colleague, and a devoted friend.

Paul D. Ankrum, Simpson Linke, William H. Erickson