



Elmer W. Engstrom

1901–1984

By William Webster

Elmer W. Engstrom died at the Meadow Lakes Retirement Community in Hightstown, New Jersey, on October 30, 1984, after a long illness. Dr. Engstrom, a former president of the RCA Corporation who also headed its research laboratories in Princeton, New Jersey, played a major role in the development of color television. He retired from RCA in 1969.

Dr. Engstrom rose to the top level of one of the world's largest electronics companies from a background of research, engineering, and technical management. In his career of thirty-nine years with RCA, he directed major research and engineering programs and advanced through increasingly important executive assignments involving the manufacture and marketing as well as the technical activities of the company.

Dr. Engstrom served as president of RCA from 1961 to the end of 1965. In the ensuing two years, he was chairman of the executive committee of the board of directors and chief executive officer. He relinquished the latter title in 1968 but remained chairman of the executive committee until his retirement. During the early years of his retirement, he was a consultant to RCA and remained a member of the board of directors until 1971.

Elmer Engstrom was born in Minneapolis, Minnesota, on

August 25, 1901. He graduated from the University of Minnesota with a B.S. in electrical engineering in 1923. In later years he was awarded honorary degrees by eighteen colleges and universities.

Following his graduation from the University of Minnesota, he joined the General Electric Company in Schenectady, New York, and was assigned to engineering development work on radio transmitting and receiving equipment. When General Electric initiated commercial activity in motion picture sound equipment, he was placed in charge of the company's engineering development and apparatus design.

In 1930, when the radio and engineering activities of General Electric were transferred to RCA, Elmer Engstrom joined the corporation as division engineer in charge of the Photophone sound motion picture apparatus. Soon afterwards, he assumed engineering responsibilities for RCA's broadcast receiver development and production.

Beginning in the 1930s, Dr. Engstrom supervised RCA's television research and development program. He developed the concept of television as a complete system, introducing one of the early large-scale examples of the system's engineering concept that is now standard in major technical programs. In the postwar years, as head of RCA Laboratories, he applied the same concept in directing the development program for the all-electronic, compatible color television system.

In 1931 Dr. Engstrom directed the first test of a complete television system at RCA. The test was made in the Empire State Building, where a transmitter was installed on the eighty-fifth floor. A mechanical scanner provided a 120-line, 24-frame picture from live and film subjects. Extensive field tests were then made using the first cathode ray tube receivers. The picture clarity left much to be desired, but the equipment worked well as a system, and the tests proved that television broadcasting was possible.

In 1942, when all RCA research project activities were merged at Princeton, New Jersey, Dr. Engstrom became director

of general research. In 1945 he was elected vice-president in charge of research. Under his direction the research group of the RCA Laboratories compiled a brilliant wartime record in the fields of radar, radio, shoran, sonar, airborne electronics, infrared television, and acoustics.

The end of World War II resulted in a transition to a peacetime economy. Television became a major concern of the electronics industry. A rush to establish new television stations was followed by a partial freeze as the industry and the Federal Communications Commission (FCC) settled the thorny questions of standards, first for monochrome and then for color. During the lengthy field tests, hearings, and reviews, Dr. Engstrom led RCA's technical efforts and acted as the corporation's chief spokesman. He also served as vice-chairman of the National Television System Committee, the industry committee that studied and recommended the standards eventually adopted by the FCC in 1953.

In 1955 Elmer Engstrom, then senior executive vice-president of RCA, was also placed in charge of RCA's defense activities. Spurred by the experience of the Korean War, a tremendous buildup was taking place in defense electronics. Large projects such as BMEWS (the Ballistic Missile Early Warning System) were undertaken and successfully completed by RCA.

As the principal engineering executive of RCA during the 1950s, Dr. Engstrom was responsible for the establishment in 1958 of RCA's Astro-Electronics Division, the first organization of its scope established within the electronics industry to develop space electronic systems. The very successful TIROS (Television Infrared Observation Satellite) weather-reporting satellite system was an early product of this division.

These and other contributions in the fields of both engineering and corporate management brought Dr. Engstrom a number of honors from both engineering and industrial organizations. He was one of the founding members of the National Academy of Engineering and a member of its

Council. In 1965 he presented the Charles Proteus Steinmetz Centennial Lecture at the first annual meeting of the National Academy of Engineering and received the Charles Proteus Steinmetz Centennial Medal.

In 1958 he was the recipient of the Industrial Research Institute Medal for "distinguished leadership in industrial research," and in 1962 he received the Medal of Honor of the Electronic Industries Association in recognition of his contributions to the advancement of the electronics industry. In 1966 Dr. Engstrom was presented with the Founders Award of the Institute of Electrical and Electronics Engineers "for his leadership in management and integration of research and development programs and for his foresighted application of the systems engineering concept in bringing television to the public." That same year he also received the William Proctor Prize for scientific achievement from the Scientific Research Society of America.

His foreign honors included membership in the Royal Swedish Academy of Engineering Sciences and the rank of commander in the Order of Merit of the Italian Republic. In 1965 the King of Sweden conferred on him the rank of commander of the Royal Order of Vasa.

Dr. Engstrom was the author and coauthor of numerous articles that appeared in technical publications and was a licensed professional engineer in the state of New York. He participated in the work of many major advisory groups and professional organizations during his career. Among his principal positions and memberships were chairman of the Research and Engineering Advisory Panel on Electronics; member of the Defense Science Board, Office of the Secretary of Defense; member of the Research and Development Committee of the National Security Industrial Association and chairman of its visiting committee to the Naval Research Laboratory; and member of President Nixon's Science Policy Task Force.

In 1965 Elmer Engstrom was appointed chairman of the U.S. Industrial Payroll Savings Committee by Douglas Dillon,

Secretary of the Treasury. In honor of his community activities in Princeton, New Jersey, Dr. Engstrom was given the Gerard B. Lambert Community Service Award from the Princeton Area United Community Fund and was named "Man of the Year for 1964" by the Princeton Chamber of Commerce and Civic Council.

Dr. Engstrom's great ability was to recognize, organize, and direct the proliferating talents that surrounded him. Without exception, those who worked with him had not only a high respect for his ability and integrity but also a genuine liking for the man himself. Perhaps steadfastness was his most outstanding trait.

Over the years, his personality did not change much from his days as a young engineer. Those who knew Elmer Engstrom best would tell you that. He became more experienced, of course, and more mature, but he remained quiet in mien, courteous in speech, and almost embarrassingly honest in everything he did.

He was always searching in his questioning manner and steely-eyed in his decision-making style. He had a natural reserve that was sometimes mistaken for aloofness, yet he was always quick to acknowledge the thousands of acquaintances he had made over the years, making it a point to maintain personal relationships that dated back to his days as a young engineer.