



Maurice Apstein

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1910-1987

By Jacob Rabinow

Maurice Apstein, former associate technical director of the Army's Harry Diamond Laboratories and a professor of the George Washington University's Department of Engineering Administration, died of a heart attack on March 16, 1987.

Maurice Apstein was born on May 5, 1910, in Bridgeport, Connecticut. He received his early education in the public schools of Bridgeport and New York City. He attended the City College of New York where he received his B.S. in electrical engineering in 1932. He did some graduate work at the New York University, and later, after moving to Washington, D.C., he earned a master's degree in engineering administration from the George Washington University in 1959. In 1963 he received the Ph.D. in research administration from the American University.

Mr. Apstein entered the electronics industry early in his career. Always having been interested in this field, he was a ham radio operator for most of his life.

In 1932 he joined the Simplex Electric Company of New York as a design engineer on public address equipment, and in 1935 he joined the Morlen Electric Company as a senior engineer. The Morlen Electric Company was involved in the design and construction of high-power audio equipment. Among these was the system used at the Paris

International Exposition of 1937. He became chief engineer of Morlen in 1938.

From 1940 to 1945 Maurice Apstein was connected with the Board of Education of New York City, serving successively as teacher of radio communication, chairman of the Radio Department, and assistant to the Board of Examiners.

During this period, Dr. Apstein also served as a consulting engineer to the Cardwell Manufacturing Corporation, an important manufacturer of component equipment and total systems of radio transmitters and test equipment.

In 1945 Maurice Apstein joined Cardwell Manufacturing Corporation as chief engineer and was a major actor in the company's large efforts during World II. His fields of work included such items as high-frequency meters, automatic calibration equipment, signal generators, auto-tune transmitters and receivers, and radio direction finders.

In 1949 at the urging of friends in Washington, he joined the staff of one of the ordnance divisions of the National Bureau of Standards (NBS) as a supervising electronics scientist.

As is well known now, the ordnance laboratories of NBS were the major development organization of radio proximity fuzes, particularly for nonrotating projectiles, such as bombs, rockets, and guided missiles.

Here he showed early his great expertise in electronic engineering by inventing a new electric bomb fuzing system, and many other devices and system for electronic ordnance.

For his work at the NBS, Maurice Apstein received the U.S. Department of Commerce's Exceptional Service Award. In 1952 he was promoted to the post of assistant chief of the Electro-mechanical Ordnance Division.

When the three ordnance divisions were separated from NBS in 1953 and were formed into the Diamond Ordnance Fuze Laboratories, Dr. Apstein chose to remain with that group and became chief of the electro-mechanical laboratory. Here he supervised the general design and made many

personal technical contributions to the safety and arming systems of many of our most important weapons.

From 1955 on, Maurice Apstein served in progressively more important posts such as chief of several main divisions of the Harry Diamond Labs. In 1957 he was associate director for research and, finally, in 1960 he became the associate technical director of this institution. He also served as engineering science member and chairman of the U.S. Army Research Council.

For his contributions to the work in ordnance, in addition to the gold medal from the U.S. Department of Commerce, Dr. Apstein received many honors. In 1960 he was awarded the Secretary of the U.S. Army Research Study Fellowship. The result of the study was a very important report on the proper balance between in-house and contract efforts on research and development by government laboratories. Dr. Apstein was a firm believer that a major share of research and development needed by the government should be done in government laboratories, and that if this is not done, the government scientists and engineers quickly lose their expertise, both because they are no longer doing the development themselves and because they have no time for actual engineering work while managing the outside contracts.

Maurice Apstein retired from government work in 1974 and for the next three years served as a research professor of engineering administration at the George Washington University.

As recognition of Dr. Apstein's contribution to the field of electronic engineering, he was raised to the ranks of fellow of the Washington Academy of Sciences in 1958, and fellow of the Institute of Electrical and Electronics Engineers (IEEE) in 1959. The IEEE awarded Dr. Apstein the Harry Diamond Memorial Award in 1969 "For contributions to ordnance electronics and inspiring leadership in the work of government laboratories."

Among many other honors, he also received the U.S.

Department of the Army Decoration for Exceptional Civilian Service in 1973 "For exceptionally meritorious performance of duties and major contributions to defense systems from 1949 to August 1972."

Maurice Apstein was also a member of the Washington Philosophical Society, the American Association for the Advancement of Science, and the Cosmos Club.

In addition to his in-house work for the Harry Diamond Labs and the George Washington University, Dr. Apstein served as a member of literally dozens of committees and delivered many lectures. These latter were particularly concerned with the management aspects of research and development. Space does not permit the detailed listing of the papers and reports authored by Maurice Apstein. He received sixteen U.S. patents and there were a few more pending at the time of his death.

If we were to describe the work and interests of Maurice Apstein's life, we can state, briefly, that here was a brilliant engineer who was equally interested and proficient as a superb technician and as a superb manager.

