1993 Pioneer Award

C. Lester Hogan

The Pioneer Award recognizes contributions which have had major impact on our field and have stood the test of time. The basis for the nomination is an archival paper in the field of interest of MTT-S, published at least 20 years prior to the year of the award, i.e. it recognizes important technical contributions that have had a continuing impact on the practice of microwave engineering, for a period exceeding two decades.

In 1993 we have two winners: Dr. Claud Cleeton, retired Associate Director of the Naval Research Laboratory, and Dr. C. Lester Hogan, retired President and Chief Executive Officer of Fairchild Camera and Instrument.

Dr. Hogan is cited "For Pioneering the Application of Ferrites to Microwave Devices." His paper "The Ferromagnetic Faraday Effect at Microwave Frequencies and its Applications," Bell System Technical Journal, Vol. 31, pp 1–31, January 1952, is the seminal paper publication on ferrite devices.

Dr. C. Lester Hogan was born and reared in Great Falls, Montana, and obtained his Bachelors Degree in Chemical Engineering at Montana State University in 1942. After working in the Research Laboratories of Anaconda Copper Mining Company for several months, he decided to join the US Navy. He was inducted as an Ensign in 1943 and was placed on inactive duty in June of 1946.

His experience in the Navy, all related to the Acoustic Torpedo, led him to get his Ph.D. in Physics at Lehigh University in 1950. Since Bell Labs had developed this top secret torpedo, his experience in the Navy brought him into close contact with the Bell Laboratories and the engineers and scientists at Bell Labs that were involved in this new weapon. The Bell Labs people spent a great deal of their time teaching Hogan the electronics he needed in order to fully understand the operation of this amazing device. From this relationship, Hogan decided that as soon as the war was over he was going to get a Ph.D. in Physics and the Bell Labs people urged him to join the Laboratories as soon as his schooling was finished. He entered Lehigh University in June of 1946 and received his Doctorate in Physics in June of 1950. He then joined Bell Labs on August 1, 1950.

In November, 1950, he had successfully demonstrated the microwave gyrator, circulator, and isolator with the help of at least a dozen people at Bell Labs who became very excited about the possibility of such a device. Without their help, encouragement, and support these devices could not have been demonstrated so rapidly.

The invention received a great deal of attention throughout the world, and, as a result, he joined Harvard University as an Associate Professor in Applied Physics in 1953. In 1954 he was promoted to Gordon McKay, Professor of Applied Physics.

From 1958 to 1968, Hogan served as General Manager of the Motorola Semi-conductor Products Division, and during that period, became Executive Vice President of the parent Company and a member of the Board of Directors. During this period, he built Motorola's Semiconductor Division from a small Laboratory operation that supplied devices almost exclusively to other Divisions of Motorola into a Company that equalled or excelled Texas Instrument both in sales and in profitability.

In 1968, Hogan joined Fairchild Camera & Instrument Corporation as President and Chief Executive Officer and stepped down from this position in 1974.

Hogan has received many awards during his career. They included the Frederik Philips Gold Medal from IEEE in 1976. In 1977, he was elected to membership in the National Academy of Engineering. In 1978 he was elected to an Honorary Fellow of the IEE (London), and at the present time is the only American holding this award. In 1979, he received the Medal of Achievement from the American Electronics Association.

In addition, he has served on many Advisory Councils in Electrical Engineering and Computer Sciences such as MIT (1974–1985); University of California at Berkeley (1968–date); Princeton (1957–1968); Lehigh University (1965–1971); Stanford U. (1977–1987); Oak Ridge National Labs (1978–1982). In addition, he has served on approximately a dozen Corporate Boards of Directors, and has served on many local and national foundations.

He has received Honorary degrees from Montana State University, Lehigh University, Worcester Polytechnic, and Harvard University. In addition, he has received the Berkeley Citation from University of California at Berkeley.