

1998 PIONEER AWARD

Mr. G. Ross Kilgore

The Pioneer Award recognizes contributions that have had a major impact on the microwave engineering field and have stood the test of time. The basis of 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. Mr. G. Ross Kilgore is the recipient this year of the Pioneer award. He developed the earliest U.S. microwave power tubes and received his Fellow Award in 1957 in recognition of his pioneering work in high frequency tubes.

The award consists of a plaque and an honorarium of \$1,000. The citation reads: "FOR PIONEERING WORK IN 1931-1934 ON INTERNAL CIRCUIT MAGNETRON OSCILLATOR TUBES FOR THE GENERATION OF 9 cm WAVES."

Mr. G. Ross Kilgore (A'30, M'40, SM'43, F'57, LF'72) was born January 31, 1907, in Fremont, Nebraska. He received a B.S. in EE from the University of Nebraska in 1928 and a M.S. in EE from University of Pittsburgh in 1931.

He joined Westinghouse Research Laboratories in East Pittsburgh, PA in 1928 as a research engineer where he worked until 1934. In 1933, he developed the earliest microwave tube in the U.S. and applied it to microwave beam transmission and radio detection. He demonstrated this equipment at the Chicago World's Fair in 1933 and 1934 and supplied two models to the Army Signal Corps Laboratory at Ft. Monmouth for early radio detection experiments.

In 1934 he joined RCA as a research engineer, first at RCA Radiotron in Harrison, N.J., and later at the newly formed RCA Laboratories in Princeton, N.J. During 1934-1947, he developed high power magnetrons developing 100 watts at 500 MHz in 1935. He developed beam deflection tubes for microwave receivers and a magnetron for FM radar.

In 1947, he joined the U.S. Army Signal Corps Laboratory at Belmar, NJ as Chief Vacuum Tube Development section and later advanced to Director of the Electron Devices Division in 1953. This division was responsible for the Army program of Research and Development of electron tubes and semiconductor devices.

In 1957, he rejoined Westinghouse to set up an Electron Tube Development Laboratory for the Westinghouse Defense and Space Center. He retired in 1971 as Manager, Technical Program Services.

His honors include:

Fellow, Institute of Radio Engineers, 1957;
Life Fellow, IEEE, 1972;
and IEEE Centennial Medal, 1984

Mr. Kilgore has published 12 technical papers on Microwave tubes, from 1932 to 1984. He holds 18 patents on microwave magnetrons and beam deflection tubes.

