

## Contributors to This Issue

C. F. EDWARDS, B.A. 1929 and M.A. 1930, Ohio State University; A. T. & T. Co. 1930-34; Bell Telephone Laboratories, 1935-. Research in transoceanic short wave transmission, transoceanic short wave transmission using multiple unit steerable antenna receiving system, waveguide circuit design, frequency converters for microwave radio relay systems and time division multiplex telephone system. Author of articles published in I.R.E. Proceedings. Member of I.R.E.

JOSEPH P. LAICO, M.E., Brooklyn Polytechnic Institute, 1933; General Drafting Company, 1920-23; American Machine and Foundry Company, 1923-29; Bell Telephone Laboratories, 1929-. Supervision in the field of mechanical design and development of electronic devices is Mr. Laico's occupation at the Laboratories. He holds some twenty patents, all in electronic devices, and is a member of Tau Beta Pi.

E. J. McCLUSKEY, JR., A.B., 1953, Bowdoin College, B.S. and M.S. 1953 and Sc.D. 1956, M.I.T.; Bell Telephone Laboratories, co-operative student, 1950-52; M.I.T. research assistant and instructor, 1953-55; Bell Telephone Laboratories, 1955-. Research in connection with electronic switching systems. Non-resident instructor at M.I.T., summer 1956. Lecturer at C.C.N.Y., 1956. Member of I.R.E., Phi Beta Kappa, Tau Beta Pi, Eta Kappa Nu and Sigma Xi.

HUNTER L. McDOWELL, B.E.E., Cornell University, 1948; Bell Telephone Laboratories, 1948-. At the Laboratories, Mr. McDowell has been principally engaged in vacuum tube development, particularly traveling wave amplifiers. He is a member of I.R.E.

SAMUEL P. MORGAN, B.S. 1943, M.S. 1944 and Ph.D. 1947, California Institute of Technology; Bell Telephone Laboratories, 1947-. A research mathematician, Dr. Morgan specializes in electromagnetic theory. Studies in problems of waveguide and coaxial cable transmission and microwave antenna theory. Member of the American Physical Society, Tau Beta Pi, Sigma Xi and I.R.E.

CLARENCE R. MOSTER, B.E.E., Alabama Polytechnic Institute, 1942; S.M., Massachusetts Institute of Technology, 1947; Naval Research Laboratory, 1942-45; Bell Telephone Laboratories, 1947-. Mr. Moster's main work at the Laboratories has been in vacuum tube development, specializing in microwave tubes. Member of Institute of Radio Engineers, Sigma Xi, Eta Kappa Nu and Phi Kappa Phi.

W. T. READ, JR., B.S. 1944, Rutgers and M.S. 1948, Brown University; National Defense Research Committee, 1943-46; Engaged in air-blast and earth-shock tests at Princeton University Station and measurements of air blast at Bikini atom bomb tests; Bell Telephone Laboratories, 1947-. Photoelastic and mathematical stress analysis. Dislocation theory and problems of plastic deformation were early studies. Later involved with theory of flow and space charge of holes and electrons and with electrical and mechanical effects of dislocations and other imperfections in semiconductors. Author of "Dislocations in Crystals," McGraw-Hill, 1953. Member of Phi Beta Kappa.

WILLIAM MERLIN SHARPLESS, B.S. in E.E. 1928 and Professional Engineering in E.E. 1951, University of Minnesota; Bell Telephone Laboratories, 1928-. Studies of optical behaviors of the ground for short radio waves, artificial ground systems for short wave reception, angle of arrival of transatlantic short wave signals, multiple unit steerable antenna system, microwave radio circuits, noise factors in microwave silicon rectifiers, broad band balanced and unbalanced crystal converters, radar, propagation of microwaves over land paths, angle of arrival of microwaves, and antenna systems and artificial dielectrics for microwaves. Several patents. Published papers on short radio waves and microwaves. Member of American Physical Society and Scientific Research Society of America. Senior member of I.R.E.

JAMES A. YOUNG, JR., B.S. 1943, California Institute of Technology; Radio Officer, U. S. Army Signal Corps, 1943-1946; Jet Propulsion Laboratory of California Institute of Technology, 1946-1947; Ph.D. 1953, University of Washington; Bell Telephone Laboratories, 1953-. Concerned primarily with low loss circular electric mode waveguide. Member of American Physical Society, Sigma Xi and I.R.E.