

Contributors To This Issue

R. W. FRIIS, B.S.E.E., 1930, University of Minnesota; Bell Telephone Laboratories, 1930—. He was first concerned with the development of HF and UHF radio equipment for use in the Bell System to span natural barriers. Before and during World War II he took part in the early development and evaluation of several types of microwave radar designed for fire control and gun laying applications and the development of radar counter measure transmitters. Since 1945 he has been concerned with the development and design of various microwave radio relay systems beginning with the initial New York-Boston TD(X) experimental system. He is presently Head, Microwave Equipment Department, and is a Registered Professional Engineer-New York. Senior Member, IEEE.

J. JAN JANSEN, SB and SM, 1939, Massachusetts Institute of Technology; Bell Telephone Laboratories 1939—. His early assignments included circuit design work for the television terminals for the L1 coaxial system and the A1 video transmission system. During World War II he was engaged in military work for several airborne radar systems. After the war he participated in the design of the A2A video system and the television terminals for the L3 coaxial system. Since 1957 he has headed groups at the Merrimack Valley Laboratory in the development of the L3 system, the T1 carrier system, and microwave radio systems. Member, Sigma Xi, Eta Kappa Nu, IEEE.

R. M. JENSEN, B.S. in E.E., 1937, Purdue University; Bell Telephone Laboratories, 1937—. He was first engaged in development of audio equipment and subsequently worked in the Quality Assurance Department. In 1938 he was assigned to development of L-type multiplex networks and during World War II he was concerned with the development of tuned amplifiers, coaxial filters, and crystal-controlled oscillators. After the war he resumed development of multiplex networks and in 1956 was assigned to the development of microwave networks and became a supervisor in 1959. Since 1964 he has supervised a group

engaged in equipment design of TL-2/TM-1 Radio Relay, TD-3 Radio Relay, and 3A FM Terminals. Member, Sigma Pi Sigma.

HAROLD T. KING, B.A., 1930, Harvard University; Bell Telephone Laboratories, 1930—. Mr. King was involved in the development of the early Bell System carrier systems. He served five years in the U.S. Army during World War II attaining the rank of Lt. Colonel. Upon his return to the Laboratories, Mr. King was engaged in the development of the N and O carrier systems, then supervised a group in the development of the T1 System. At present, he supervises a group in the development of short-haul microwave radio systems.

E. A. J. MARCATILI, Aeronautical Engineer, 1947, and E.E., 1948, University of Cordoba (Argentina); research staff, University of Cordoba, 1947-54; Bell Telephone Laboratories, 1954—. He has been engaged in theory and design of filters in multimode waveguides and in waveguide systems research. More recently he has concentrated in the study of optical transmission media. Member, IEEE.

J. B. O'NEAL, JR., B.E.E., 1957, Georgia Institute of Technology; M.E.E., 1960, University of South Carolina; Ph.D., 1963, University of Florida; Bell Telephone Laboratories, 1964—. While employed at the Martin Company in 1959-60, he worked on random access communications systems. He is currently engaged in studies to determine efficient coding techniques for converting analog television signals into digital form. Member, IEEE, Eta Kappa Nu; associate member, Sigma Xi.

ATTILIO J. RAINAL, University of Alaska, University of Dayton, 1950-52; B.S.E.Sc., 1956, Pennsylvania State University; M.S.E.E., 1959, Drexel Institute of Technology; DR. ENG., 1963, Johns Hopkins University; Bell Telephone Laboratories, 1964—. He has been engaged in research on noise theory with application to radar theory. Member, Tau Beta Pi, Eta Kappa Nu, Sigma Tau, Pi Mu Epsilon, Sigma Xi, IEEE.

J. E. SAVAGE, S.B., S.M., 1962 and Ph.D., 1965, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1965—. Mr. Savage has been concerned with problems in coding and communication theory. Member, Tau Beta Pi, Sigma Xi, Eta Kappa Nu, IEEE.

GERD F. WEISSMANN, Dipl.-Ing. in civil eng. 1950, Technical University of Berlin; M.S. eng. mechanics, 1953, Pennsylvania State University; Bell Telephone Laboratories, 1953—. Mr. Weissmann's work at the Laboratories has been in soil mechanics, engineering mechanics, and materials properties and testing. He is the author or coauthor of several papers in these fields. Member, Society for Experimental Stress Analysis, ASTM Committee D-18 on Soils and Rocks for Engineering Purposes, American Society of Civil Engineers.

