



## William Walden Mumford

Born at Vancouver, Washington, on June 17, 1905, Mr. Mumford majored in physics and mathematics at Willamette University, Salem, Oregon, receiving the A.B. degree in 1930. He at once joined the Technical Staff of the Bell Telephone Laboratories with the Radio Research Department at Holmdel, N. J. He has worked on ultra short-wave propagation and microwave components for radio relay systems and radars. Mr. Mumford's contributions in the microwave field include the directional coupler, wideband coaxial to waveguide transducers, helix to waveguide transitions as used in the traveling-wave tube and the gas-discharge noise generator. These are covered in fifteen published papers and nine patents.

His interest in radio communication began early. He received his first amateur radio operator's license at the age of eleven and his first commercial operator's license at thirteen. He served in the United States Coast Guard, as a radio operator on the Cutter Algonquin in 1923 and 1924,

and as a telegraph operator, clerk and manager with the Western Union Telegraph Company during the next two years.

In his freshman year at Willamette University he was awarded the Burghart prize for proficiency in calculus, and during the last two years there he was employed in the testing laboratory of the Oregon State Highway Commission as a technician.

He became an Associate Member of the IRE in 1930, a Senior Member in 1946, and a Fellow in 1952. He has served on the technical program committees of the Institute's National Conventions and the Monmouth sub-section, has been Secretary, Vice-President, and is now President of the IRE Professional Group on Microwave Theory and Techniques.

Currently he is engaged in the microwave problems associated with the development of military electronic equipment at the Bell Telephone Laboratories, Whippany, N. J.