

# Abstracts

## The Challenge

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G.C. Southworth. "The Challenge." 1955 *Transactions on Microwave Theory and Techniques* 3.1 (Jan. 1955 [T-MTT]): 3-3.

There are still many people who remember well when radio was used solely for telegraph purposes. At that time there was no broadcasting, no transoceanic telephony and, of course, no television or radar. Nor were there any of the countless other services now rendered by radio, such as telephone communications with airplanes and with motor vehicles. Beginning back in the early days of radio with the first appreciation that each single radio service required a separate band of frequencies, additional services meant inevitably a growth toward higher and higher frequencies. This growth passed rather swiftly with the years, first from tens of kilocycles, where commercial radio first started, to megacycles, and thence to tens, hundreds and thousands, and now more recently to tens of thousands of megacycles. With our best laboratory techniques, we are now at a rather indefinite and probably temporary frontier around a hundred thousand megacycles. This briefly is the half-century path that has led to the work of this particular Professional Group.

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