

Robert C. Hansen's Phased Antenna Array Contributions

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Robert C. Hansen was a legend in the antennas discipline, having a quite long and productive career, first at several companies and then a substantial tenure as a consulting engineer. What's rather remarkable is the broad topical areas in which he contributed to over his career, and his work ranged from analytical theory, to computational methods, to practical applications. Notably, he was one of the first researchers to use a computer to analyze antennas, and much of his work was facilitated by insightful use of these simulations. Throughout his career Dr. Hansen consulted, published extensively, and was a staple at technical conferences up until very late in his life, cementing his reputation as a knowledgeable and talented researcher and engineer.

Out of the many areas he worked in, Dr. Hansen was particularly well known for his work in phased antenna arrays, having authored many significant journal and conference papers on the topic, and in addition published well known books on this topic (see his outstanding three part "Microwave Scanning Antennas" series first published in the 1960s, as well as his "Phased Array Antennas" textbook, which was updated in a second edition in 2009). This presentation discusses Dr. Hansen's phased array work spanning his first publications in the mid-1950s up through his final publications in the 2010's. With such a lengthy publication list, covering seven decades, it is impossible to do justice to every topic; instead, this presentation aims to highlight his most significant contributions to this vibrant and continuously evolving community and place his work in the larger context of the phased array literature.