



Harold Zahl, PhD

Radar Pioneer

By Phillip B. Petersen, July 17, 1991

Dr. Harold Zahl was a creative, enthusiastic scientist and prolific author who vividly wrote of many experiences during his 35-year career, most of it as Director of Research, at the large Signal Corps Research and Development Laboratories at Fort Monmouth, New Jersey.

He grew up in Porterville, California where he became very interested in the magic of electricity and wireless. He was only ten years old when he made two experiments to develop electricity in his backyard; both were failures. His father was a minister who didn't spare the rod when the experiments destroyed their garden.

When Harold was 12 years old, he received a check for three dollars for writing an article in Radio News magazine. This, no doubt, motivated his interest in writing about scientific developments. Some were science fiction. After all, many science fiction stories do eventually come true.

While still in his teens, he built his amateur radio spark transmitter, stretched the antenna from the house to the barn, and went on the air using the call letters 6BHI that had been assigned by Herbert Hoover, then the Secretary of Commerce.

It was 1931, the very dark years of the depression, when, after receiving his Ph.D. at Iowa University, Doctor Zahl started his scientific career at the Fort Monmouth Laboratories, developing a submarine warning system. He soon was able to detect ships up to 50 miles away. But this all changed with the threat of war in Europe and the large increase in Hitler's airpower. A method must be found to give early warning of enemy aircraft. Col. Blair, the laboratory director at the time, gave the go ahead. The secret, high priority project, called RPF (now called RADAR) got underway. One of the vital parts was a high power electron tube that was designed and built by Doctor Zahl in the laboratory.

In November 1939, the radar easily detected aircraft out to 138 miles and became the first radar in Amer-

ica. The patent is in the name of Col. Blair, the laboratory director. Several were already in operation at strategic locations before World War II.

One was at Pearl Harbor. Its early warning was not heeded and the Japanese bombed Pearl Harbor, starting World War II in the Pacific.

The radar development had wide application in peacetime use. For instance, many of the electronic circuits used in radar are directly used in the development of television, VCRs and computers. Radar has brought many other benefits, such as safety in flying, shipping by sea and weather reporting, to name a few.

The decades of the 30s, 40s and 50s on into the space age were years of great scientific breakthroughs in electronic research. Dr. Harold Zahl is remembered as one who was an active participant in making these changes happen."

Dr. Zahl was the Director of Research from 1948 to 1966 at Fort Monmouth's Camp Evans. He wrote many scientific papers, articles and two books on the history he was a part of. InfoAge has a number of his personal files in the InfoAge Archive. Thanks to Dr. Zahl we have a look into the history of Camp Evans from a more personal point of view.

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