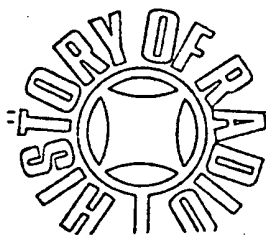


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Fred Link & Al Gross

By Pete Bowles



**Their inventions tipped the scales in World War II;
and without them, there would be no CB radio**

Editor's Note: As part of its commemoration of Citizen Band Radio's 20th Anniversary, CB MAGAZINE concludes its series of vignettes on the pioneers who developed radio. The author is a distinguished investigative reporter, and was a member of a team of writers which was awarded a Pulitzer prize for work in uncovering the trail of drugs smuggled into the United States from Europe, South America and Mexico. Beginning in 1979, a new series will begin on those who took the basic inventions and revolutionized Western civilization.

Two men who played major roles in establishing workable radio systems for America's armed forces during World War II also were pioneering contributors to the phenomenon now known as citizens band radio.

The two are Fred M. Link, 74, the father of two-way mobile communications, and Al Gross, 60, who was granted the Federal Communications Commission's first certificate of approval for a citizens band radio transceiver in 1948 — ten years before the establishment of the Class D citizens band radio service we have today. Link, who began supplying two-way radios to police departments on the East Coast as early as 1932, was responsible for outfitting the Army with two-way radios for tank use shortly before the outbreak of World War II. Gross, who designed a high-frequency walkie-talkie in 1939, helped the Office of Strategic Services set up a radio system for counterintelligence activity in the early days of the war.

Both began their radio pioneering careers as amateur radio operators.

Gross, a resident of Cleveland, Ohio, was introduced to radio in 1927 — at the age of nine — on a steamboat trip with his parents across Lake Erie to Buffalo. "Like all kids, I was restless; and during the all-day trip I wandered up to the top deck where I discovered a room full of strange, humming equipment and a man tapping out something on a telegraph key," he recalled in an interview. "It was the

ship's radio room; and the brass pounder, as they called radio operators, took me in and gave me a complete tour, even got me some lunch. From that moment I was a captive in the wonderful world of radio."

The wartime activity of Al Gross, who calls himself the first CBer, was a bit more surreptitious. With the outbreak of the war, he was called to Washington to discuss the possible development for military purposes of the handheld unit he had built in 1939. His small — 1½ by 2¼ by 8 inches — walkie-talkie seemed ideal for the clandestine work of the Office of Strategic Services, predecessor of the Central Intelligence Agency. Under the wing of the OSS, Gross helped design the highly secretive "Joan-Eleanor" system that allowed an agent on the ground to conceal a tiny transceiver for contact with a plane that copied ultra-high frequency voice transmissions on a wire recorder while retransmitting them overseas. The Joan-Eleanor system (Joan was the code name for the airplane radio, Eleanor for the ground radio) was considered one of the most spectacular radio developments of the war.

TREMENDOUS THING

In 1944, Gross was invited to a meeting of the FCC to demonstrate his hand-held radios and to discuss the possible development of a citizens radio communications service. "It was going to be a personal, two-way radio," said Gross, "and even then we realized what a tremendous thing this could be." This was probably the first discussion of what is now known as citizens band radio. As a result of the meeting, FCC Commissioner E.K. Jett wrote an article for the Saturday Evening Post in 1945 describing the postwar possibilities of a civilian radio system. "From mere listeners or spectators, as they are now, people in homes and offices throughout the country will become active participants," said Jett. The commissioner said the potential for the



Al Gross is shown in a 1949 newspaper photo demonstrating his 12-ounce CB — a cousin to the unit he developed for OSS agents behind enemy lines.

civilian radio was limitless and would undoubtedly bring American citizens — both in the cities and in the country — closer together. He also predicted the emergency applications of such a system. "When storms, floods, earthquakes or other disasters after the war disrupt wires, families and communities will nevertheless remain in touch with the outside world," wrote Jett.

Gross returned to Cleveland and set up the Citizens Radio Corp. in 1945, and for three years tested his citizen radios in every possible circumstance. On March 22, 1948, the FCC granted Gross the first certificate of approval for a radio transceiver to operate on the frequency of 465 megacycles. The FCC said the 2½-pound, battery-operated set represented "the advent of a new service which will be available to individual citizens for personal use in the band 460-470 megahertz."

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