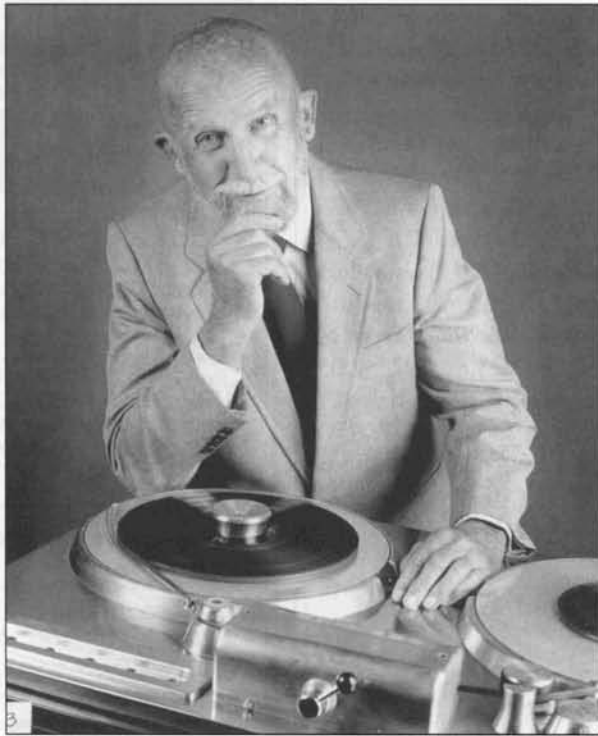


# In Memoriam



Jack Mullin with Ampex Model 200, which revolutionized the entertainment and information industries.

**J**ohn T. (Jack) Mullin, audio and video engineer, and honorary AES member, died of heart failure on Thursday, June 24, at his home in Camarillo, California, at the age of 85. Mullin introduced America to high-fidelity magnetic tape recording and helped create the postwar standards for the technology.

Born in 1913 in San Francisco, CA, Mullin graduated from Santa Clara University with a major in electrical engineering, a career choice that would propel him into the role of important catalyst in the development of postwar entertainment technology. Stationed in England during World War II, Mullin worked on Allied radar and other electronics. In his lab at night, he sometimes listened to German radio, the only classical music on the air. The performances sounded live, with none of the telltale noise of the 16-inch transcription discs—33½ and 78 r/min records—that were the norm in American

broadcasting. Mullin reasoned the Germans had some kind of outstanding, new recording technology.

In Paris, starting in the late summer of 1944, Mullin's mission was to examine captured German electronic equipment and report to the Signal Corps and to Allied Intelligence. A year later, just after the war ended, Mullin visited a studio in Germany occupied by the Allies and was shown the source of those high-fidelity recorded nighttime broadcasts he had heard in England: the AEG Magnetophon K-4 studio tape machines with AC bias in the record circuit, the key to its great quality. Mullin filed extensive reports with Army and Allied engineers. He also obtained official permission to send home two of the German transports, head assemblies, and 50 reels of I. G. Farben (BASF and Agfa) Type L blank tape for his own postwar use. He later designed and built his own electronics in his San Francisco home.

Just after World War II, Mullin introduced Bing Crosby to tape recording, a move that boosted the performer's career. Working with Bing Crosby Enterprises, U.S. broadcasters, and manufacturers, including Ampex in Redwood City, Mullin was instrumental in helping launch high-quality audio magnetic tape recording in America. He also built the first successful prototype of a video tape recorder (VTR), which led to the commercial VTR for television broadcasters, the forerunner of today's consumer VCR.

In 1946, Mullin redesigned and improved his two German Magnetophons with financial and mechanical engineering assistance from his partner, W. A. Palmer, a pioneer filmmaker. Mullin and Palmer created new methods for producing high-fidelity sound on 16-mm film using "wild" (unsynchronized) magnetic tape, a first in the U.S. The Mullin-Palmer Magnetophons were used to produce the first American commercial entertainment disc professionally mastered on tape, "Songs by Merv Griffin," released in 1946. The first public demonstration of hi-fi tape, on May 16, 1946 in San Francisco, stunned the audience of engineers, who could not believe they were not hearing live music.

As word spread during 1946, American film, recording, and radio executives began to consider adopting tape since the new medium was far superior to the methods of transcription disc and optical-film recording. The 16-inch discs sounded so bad that most programs were live, with recorded shows forbidden on most networks.

In 1946, fledgling ABC Radio Network, desperate for big-name talent, invited megastar Bing Crosby to record his show on the transcription discs. Crosby hated live radio—two shows a week, for each coast—and liked the more relaxed studio environment. But the "Philco Radio Time" on ABC sounded awful, and the ratings plummeted. Bing threatened to quit radio. Mullin was hired in the summer of 1947 to record and edit the

