

IN MEMORIAM

James F. Lawrence, Jr., AES member, died 1979 July 25 at the age of 54. He received his education at the University of Southern California where he earned a bachelor of engineering degree in electrical engineering. In 1965 Mr. Lawrence was president and founder of Teletronix Engineering Co., a California corporation engaged in development and manufacturing of broadcast and communication equipment, particularly high-power FM broadcast and special purpose multi-channel medium power AM and CW transmitters for government use.

His more than 20 years of experience as an electronics engineer included work in design, development and administration. Two of the many positions he held were: project manager for the Ralph M. Parsons Co., electronics division in Pasadena; and research engineer for the Jet Propulsion Lab (Pasadena) where he supervised development of ground support equipment, associated with guided missile systems and telemetry.

His most recent position before his death was with Elcom, an engineering company in Santa Ana, California.

He was the author of technical papers in his field and a senior member of the IEEE.

Randy H. Risch, sales manager of Wah Sound, Sacramento, California, died from cancer, 1979 August 4. During the 18 months he was with Wah Sound, he initiated and carried out an aggressive sales program aimed at improving the quality of professional P.A. and recording in the Sacramento area while meeting the needs of local musicians and studios. A musician himself for many years, Randy was able to use his considerable knowledge of electronics and his engineering background to design sound systems of

the highest quality. Randy would not compromise his standards of excellence in the audio field. He was an extraordinary person and will be deeply missed by all who knew him.

The Staff at Wah Sound

Robert H. Carson, a life member of the Society, passed away 1979 May 4. Born in Tucson, Arizona, he graduated from the University of Arizona in 1933. Bob was one of the U.S. pioneers in magnetic recording. While at Harvard in the early 1940s, he developed the first endless loop cartridge using a thin tungsten steel tape in a small brass package. This device, which was the forerunner of the modern 8-track cartridge, was used in the Combat Information Center in Navy ships for short-term message storage. He joined the Naval Research Laboratory in 1945, where he fabricated what was possibly the first in-line two-track head. In conjunction with a "dummy head" microphone, one of its uses was for binaural conference recording.

Bob was in charge of standardization of magnetic recording for the Navy as well as being responsible for many early developments, such as precision azimuth alignment tapes and experimental confirmation of the theoretical predictions of high-frequency loss due to lack of tape to head contact. He retired from NRL in 1972. After retirement he continued a small business supplying Visa Mag, a tape visualizing material, to a number of corporations. In addition, he maintained a small recording facility and supplied pre-recorded musical material and equipment for performers in a number of Washington nightclubs. Although recently in poor health, he remained very active and interested until his death.

Edward F. McClain