

In Memoriam

With the death of **Friedrich Wilhelm Otto Bauch** at the age of 92, the sound recording industry has lost another of its great pioneers. Known to his friends and colleagues as FWO, he was born and educated in Berlin, where he read physics at the University of Berlin in the 1920s. During that time he became involved in some of the earliest research into cancer, working with Professor Albert Einstein.

Many probably know FWO solely as the man who started the UK-based company that bore his name, but in fact this was only one achievement in his long and illustrious career. FWO also conducted his own research into magnetic tape and wire recording principles. In 1928 he and a colleague were granted various patents relating to the design of a magnetic steel-tape recording machine. This revolutionary design employed the first "ring head"—a closed-core magnetic head with an air gap that addressed only one side of the tape, also allowing recording of more than one audio track, which almost certainly made it the first "multitrack." A machine was built which was used for the continuous playback of pre-recorded music and speech for advertising purposes. The associated amplifier was also unusual in that it was designed to drive a shop window pane like a loudspeaker diaphragm.

F.W.O. Bauch was both a physicist and engineer—a rare combination. In 1930 he was invited to join a small group at the newly formed Heinrich Hertz Institute for Oscillation Research in Berlin, which was engaged in magnetic and ultrasonic research. In fact, a great deal of Bauch's early work centered around UHF and the transmission of high frequency signals. In 1934 this work led to his recommendation by the Hertz Institute for a secondment to the G.E.C. Re-



F.W.O. Bauch

search Laboratories in the U.K. While there he worked on a project for the Swiss Ternion company investigating UHF and decimeter techniques.

During his time in the UK, FWO sold a patent for "An Improved Method of Radiation Therapy" to the Marconi Company for the princely sum of £80; just one of many patents he was granted in the 1930s. While there he also met his future wife, Helen. Upon returning to Germany in 1935, FWO joined Philips and set up a division of that company in Berlin to introduce Philips' range of electronic measuring instruments to the German market. The war years saw him working first for Philips and later in his own laboratory on direction-finding equipment using a high frequency pulse technique.

In 1946 Bauch became the founder and technical director of RIAS, the American broadcasting station in Berlin. This station incorporated much of the latest technology available at that time—including magnetic tape recorders. During his tenure at the station a series of stereo test transmissions was among the projects conducted.

Returning to the UK in 1947 to un-

dertake a government appointment as a research physicist for the British Electrical and Allied Industries Research Association, FWO went on to become a director of the Loewe Radio Company in 1948, and in 1950 a consultant to the chairman and board of directors of The Plessey Company, mainly on German and Swiss affairs. This latter appointment continued until the late 1960s, during which time he negotiated many of Plessey's most important European contracts. Meanwhile Bauch's work on tape recording continued, and in 1950 he sold his first machine: a converted German magnetophone that was delivered to Levy's Sound Studios in London in February 1950. This was closely followed by two recorders he built entirely himself, which he supplied to the Universal Programmes Corporation (later to be known as IBC) in Portland Place, London W1. These recorders achieved a frequency response of 40Hz - 15kHz +/-0.5dB. It was the delivery of these machines that marked the start of the F.W.O. Bauch company.

Bauch's many contacts in Germany proved to be of great benefit and in 1952 his fledgling company became the UK distributor for Georg Neumann GmbH, the renowned manufacturer of microphones and disc cutting equipment. A year later studio equipment manufacturer EMT was added to the list.

Right from the beginning, FWO had insisted on keeping meticulous records of every piece of equipment sold, which meant that years later a customer could return, say, a Neumann microphone for repair and F.W.O. Bauch would still have a full service history on file. (On more than one occasion this also helped to recover stolen items.)

In 1960 F.W.O. Bauch Limited was formally incorporated and FWO's eldest son John joined his father to

help run the business. Initially the pair worked from a front room of Bauch's house, before moving to offices in Cockfosters and then to larger premises in Borehamwood, north of London.

At about the same time that F.W.O. Bauch Limited was formed, EMT acquired the overseas marketing rights for a small Swiss tape recorder manufacturer, Willi Studer AG. Studer was producing a range of 3-motor tape decks, including the Model 27 designed for use by radio stations. However, it was the launch of the C37 in 1963 that attracted the interest of British broadcasters. The first C37s in the UK were supplied to independent television company ATV and the BBC, the latter going on to buy a total of 78 C37 machines. When Studer produced a 4-track version of the C37, the J37, in the mid-1960s, EMI's studio in Abbey Road was one of the first customers. It was here that the J37 achieved legendary status when it was used for the eponymous Sgt. Pepper album.

By this time Bauch's other son Michael had also joined the company and FWO had begun to take a less active role in the day to day activities of the business —although he still held office as the company's chairman and kept a watchful eye from his new home near Brighton on Britain's south coast.

The Audio Engineering Society recognized FWO's contribution to the audio industry by awarding him honorary life membership in 1986, and by featuring his early work in an extensive review of sound recording in the early days, published in the May 1988 issue of the *AES Journal*.

Bauch died peacefully at his home in Brighton on March 3, 1996, just two days after the death of his long time friend and business associate, Willi Studer. He is survived by his wife, Helen, and his two sons, John and Michael.

Bill Foster