

MMURRAY G. CROSBY, a Fellow and Honorary Member of the Audio Engineering Society, died June 8 at his home in Syosset, New York. He was seventy years old.

Mr. Crosby received his B.S. degree in 1927 and his Professional Electrical Engineering Degree in 1943 from the University of Wisconsin. For nearly twenty years, he was engaged in communications research, principally in frequency and phase modulation, for the RCA Laboratories in Riverhead, New York. In 1944, Mr. Crosby joined the research division of Press Wireless and subsequently formed his own company, Crosby Laboratories, in 1948.

In addition to research in several fields of telecommunications, Mr. Crosby's company specialized in the manufacture of diversity single side-band receivers. In 1953, Mr. Crosby developed his compatible "sum and difference" system of broadcasting multiplex FM stereo. His pioneering experimental stereo transmissions over WBAI, New York City, resulted in the licensing of a number of high fidelity equipment manufacturers to utilize his system. The FCC's approval of the present multiplex system took out of his hands the licensing of manufacturers of all stereo FM tuners and receivers. In spite of this disappointment, and later the disbanding of his publicly-owned Crosby-Teletronics Corporation, Mr. Crosby continued his research. Since 1961, he was engaged in engineering consulting. In his last years, he also worked on a sub-audible coding system for statistical verification of radio and TV commercials. Holder of more than 200 United States and foreign patents, Mr. Crosby was notified of his last one, the patent on this coding system, the day before he died. Audicom, Inc., which was involved in this project, plans to continue promoting the system.

Among his many honors, Mr. Crosby was presented in 1940 with the Modern Pioneer Award of the National Association of Manufacturers. During World War II, he was commended for his work as Technical Consultant to the



Murray G. Crosby

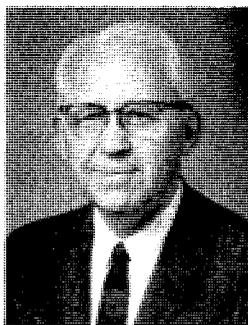
Secretary of War. In 1966, he was the recipient of the Marvin J. Kelly Award from the IEEE for "outstanding contributions and advances to the art of tele-communications". At the 1973 New York AES Convention he was made an Honorary Member of the Society "for contributions to the technical advances in stereophonic FM multiplex broadcasting". Mr. Crosby was made a Fellow of AES in 1972.

Active for many years in the affairs of the IEEE, he was a Fellow of that organization, as well as a Fellow of the Radio Club of America.

Mr. Crosby is survived by his widow, Marie M. Crosby, and by his brothers, Harry, James and Stuart. *Bert Whyte*

WALLACE WATERFALL. After a long career, at an age when most men gladly retire, Wallace Waterfall helped break in the fourth director of the American Institute of Physics. Secretary of AIP for 29 years, he resigned his active role at the Institute this March, at age 74, and so died as

Wallace Waterfall



he undoubtedly would have wanted to, almost in harness.

Waterfall received his B. Sc. from the University of Illinois in 1923. Two years later he joined the Celotex Corporation as an acoustical engineer. Eventually, he became Director of Research. He stayed with the firm for the rest of his working life, leaving it only to help the war effort. From 1943 to 1945, he served in the Division of War Research at Columbia University.

A member of AIP since its founding in 1931, Waterfall held virtually every senior office at the Institute. His associates remember him as the "little guy," as he liked to call himself, who sat next to the chairman, quietly—and indirectly—running the meeting. Waterfall was also active in the Acoustical Society of America, serving as secretary from its founding in 1929 to 1969 and as treasurer from 1968 to 1974. From 1929 to 1933, he was editor of the Journal of the Acoustical Society of America. In 1954, the Society awarded him its Gold Medal.

Waterfall was also an active member of the American Association for the Advancement of Science and of the American Physical Society. It was like him to be an active member of any organization he was connected with. "Regardless of who was AIP director or meeting chairman," said a colleague, "Wallace Waterfall was *the man at AIP to be reckoned with.*"

HOWARD HOLZER was on his way home to discuss his newest innovation with CBS when his plane crashed on take-off, injuring him fatally. He died the same day his father had, July 29, at about the same age—46.

Holzer's career in audio began in 1954, when he joined Capitol Records as chief engineer. Between then and 1961 he also served as chief engineer for Master Recorders (where he built one of Hollywood's earliest stereo consoles) and Contemporary Records, the second company in the world to release a true stereo disc recording.

In 1961 Holzer resigned from Contemporary Records to form his own

company, Holzer Audio Engineering Corporation. Under his leadership, HAECO introduced the SC-1, a quality stereo disc recording head, and the more sophisticated SC-2, a moving coil, dynamic feed-back cutter; the CSG-2 (Compatible Stereo Generator) and its quadraphonic cousin, the CSG-4; and the SD-240 Stereodriver Amplifier, a superior driving system. His last innovation, the HAECO VP-1000 fully automated Variable Pitch/Depth Lathe Control System, uses a 300-millisecond digital delay line which makes an advance preview head unnecessary, thereby revolutionizing the art of disc mastering.

Howard Holzer pioneered stereo disc mastering and designed and constructed some of the first quadraphonic mastering systems in the world. For these and other contributions to the audio industry, the Audio Engineering Society made him a Fellow in 1965.

Holzer's son Marcus, who joined HAECO three years ago, intends to carry on the work that his vigorous and inventive father had done so well.

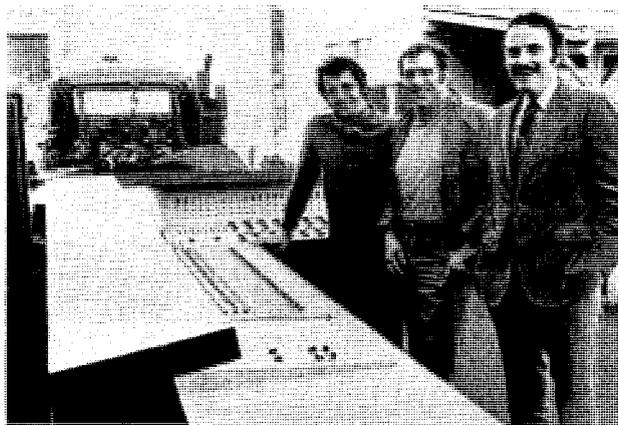
Word has been received of the death of ALEXANDER L. DVORSKY, for many years associated with the Astatic Corporation at Conneaut, Ohio. Mr. Dvorsky had been a member of the Society since 1963 and had previously presented a paper at the 1962 Fall Convention. He came to the United States from Hungary, where he was born in 1915, and graduated with

honors from Grove City College in 1941. Immediately thereafter, he joined Astatic, where he became chief engineer in charge of work on microphones and related items. He was a member also of the Acoustical Society of America and of IEEE.

WILLIAM H. HAZLETT, a life charter member of the Society, died recently. His age was 73. When Mr. Hazlett applied for AES membership in 1948, it might be noted, one of his sponsors was C. J. LeBel, first president of the Society.

Mr. Hazlett was a native New Yorker who had made his home for the past two decades or more in Rockville Center. Before his retirement several years ago, he was associated with the New York offices of Altec Lansing. At the time he joined the Society, he was with Fairchild Camera and Instruments and subsequently, before moving to Altec he was in sales work with Fairchild Recording Equipment Corporation.

ROBERT E. MITCHELL, an audio direction engineer with American Broadcasting Company in New York, died on April 12 at the age of 30. He joined ABC in 1965, immediately following his graduation from Yale, where during college years he had been a studio supervisor and producer for the Yale Broadcasting Company. At the time he became a member of AES, he was audio director of the TV serial "One Life to Live".



Howard Holzer, center, always considered this high point of his life. Photo shows Haeco console arriving at A&M Records. Flanking Holzer: Herb Alpert, Jerry Moss of A&M