Commercial Member Spotlight

Jeff Morrill, *President*, CavCom www.cavcominc.com

Note from the Editor: *Many newer members of NHCA (newer the last 20 years or so) often pass by the Exhibiting Tables at our Conferences not realizing that some of our vendors are "major" contributors & pioneers in the field of Hearing Conservation.*

Jeff Morrill is one of our true pioneers. He was recently named Minnesota Encore Entrepreneur of the Year by the Small Business Administration http://m.walkermn.com/business/article_ce9c5092-9c68-11e2-8a84-0019bb2963f4.html?mode=jqm. *I asked Jeff to share some of his valued & interesting experiences with us.*

My first experience in Hearing Conservation was working for the Minnesota Department of Health in the mid 1960's developing hearing screening programs for public schools throughout the State. Learning the importance of early identification of hearing loss led to a career in audiology beginning with the graduate program at Texas Tech University. In 1969 I left Lubbock, Texas in "my rear view mirror" with a fresh audiology degree.

A new career in audiology at the Kansas City Hearing and Speech Center paralleled the emergence of regulations for industry on Hearing Conservation. The 1969 DOL noise standard under Walsh Healy authority was the precursor of OSHA's 1971 noise standard and there was plenty of discussion about it in the industry-rich Kansas City area. It looked like an opportunity and the inside of a clinic's audiometric testing suite was not my idea for a life long career.

Searching for information on industrial Hearing Conservation was difficult as only larger companies had formal programs. However the Military had developed sophisticated audiometric screening programs for their induction centers. I met Charlie Anderson of Tracoustics who had a lot of experience in self recording instrumentation and sound rooms and after a few beers and scratching on napkins a new company, IMPACT, was founded in 1972. I still have the napkin! IMPACT (acronym: Industrial Mobile Professional Audiology Consultants and Testers). Charlie was instrumental in helping put my first group testing mobile unit together complete with a sound room and 6 Tracor self recording audiometers. I still believe that the self recording technology provided the astute tester optimum information on validity and reliability in testing.

Was 1972 the right place at the right time or the wrong time to start an industrial hearing testing business? Most entrepreneurs do not start with a business plan but love the risk factor. In retrospect, there was not a clear opportunity and there existed, from the industry side, a huge opposition to OSHA. The joke at the time was; OSHA is a four letter word and if you think OSHA is a town in Wisconsin, you're in trouble. Selling the concept of hearing testing to industry was tough, in fact, I recall a lot of blank faces and those who would listen had little intention of being the first to consider implementing a procedure that could potentially document their liability.

A regional Kansas City company, Farmland Industries, had a progressive EHS department and saw the opportunity to get a step ahead of OSHA. In a feature article in the December 1973 National Safety News J.L. Shopen, Director of Safety and Security for Farmland Industries stated "We have proceeded with the project of instituting audiometric testing in our multi plant facilities because we feel audiometric testing will make a significant improvement in our Hearing Conservation program". IMPACT was highlighted in the article which gave credence to the concept and the opportunity.

David Hackathorn, CIH, was the corporate Industrial Hygienist for Farmland Industries and worked closely with me to formulate

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testing protocols, audiogram evaluation and employee reporting aspects from the customer perspective.

It was evident that consistent evaluation of large numbers of audiograms would require a computer assisted system. I developed the ECHO (Effective Control for Hearing Objectives) audiometric computer analysis system in 1974 (there were no software analysis programs prior to that time). Programming features incorporated comparing annual tests to age-adjusted baseline and categorizing employee reports for level of risk for employer follow up. Individual computer generated employee reports were provided for the customer's employee counseling, training and HPD (hearing protection device) fitting. The ECHO system provided a platform for consistency and uniformity for customer plant locations and was certainly a key factor for growth at IMPACT.

Industrial hearing test data provided by this early computer analysis system was an excellent source to present to industry trade and professional associations as well as OSHA during the formulation of the HCA (Hearing Conservation Amendment). The data reported hearing loss prevalence by age, change in hearing levels before and after noise exposure, comparisons considering the proposed age adjustment criteria and incidence of STS (Standard Threshold Shift). The information demonstrated the need for the HCA and a manageable approach for industry.

Don Wolfe invited me to the 1977 NHCA meeting where discussions about the impending OSHA HCA were vibrant. It was an exciting time with a nucleus of professionals that would shape the industry and I was "hooked" on NHCA.

The history of the HCA is long and well documented ad nauseam. Sufficient to say, that selling hearing conservation services to industry between 1971 and the final HCA in 1983 was difficult to say the least. Medium to large size companies were more receptive but the vast majority of affected employees are found in small manufacturing companies. Thus, my sales efforts were directed to the larger corporations with EHS departments. The challenge was to provide direct services nationwide, without sub contracting. The economics of that approach were not favorable until a large customer base was developed to offset travel and equipment costs.

Acquisitions and mergers were executed between IMPACT and other Hearing Conservation providers directed at acquiring technology, equipment and regional presence; Donnelly, Miller and Nowikas, Coors Advantage Health Systems and Hearing Conservation Consultants of Spokane (Don Wolfe) each became part of the IMPACT team. These business moves provided improved critical mass for efficiencies in the nationwide effort.

I had the honor and pleasure to work with many industry pioneers across the years that helped formulate programs and services. At IMPACT; Mike Sterrett, Jack Shampan, Aram Glorig, MD, Cindy Bloyer, Don Wolfe and Susan Cooper, Ph.D. were also pioneers of the industry. Susan Cooper, Ph.D, headed up our audiology department and ultimately managed the company's growth as President until the company was sold to US Health Works in 2000. Most of the NHCA community knows Susan for her dedication to the Association.

Jeff and his CavCom family

Although my career at IMPACT ended in 2000, I continued in the Hearing Conservation arena as President of CavCom, Inc. with my wife and business partner Barbara. CavCom is a family owned and operated business and 3 of our sons work with us in the sales and business development end of the company. CavCom is a hearing protection and 2-way radio communication product designed for very high noise and also when respirator devices are employed www.cavcominc.com. The CavCom "Talk Through Your Ears" technology was invented at IMPACT and as patent holder I excluded the product and technology from the sale to US Health Works. CavCom was a new opportunity based on hearing conservation principles.

At CavCom we promote hearing protection as the essential component for radio communication. If the communication device does not have sufficient HPD noise reduction, there is no alternative but to increase the radio signal loudness to compensate for background noise. In fact, I believe a ***lot*** of single ear STS result from extremely loud one ear radio listening devices. The two principles employed in our products are to limit the MPO (Maximum Power Output) of the listening device to safe levels and improve HPD levels to ensure clear communication under optimum protection. Without a true

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balance in these factors the signal-to-noise ratio will result in over exposure to the user.

HPD fit testing has been so slow to be adopted as a standard method for improving protection levels. Audiometric testing is important but I believe fit testing is critical and we use it routinely to determine Personal Attenuation Rating (PAR) for acceptable signal to noise ratio for our CavCom users. Certainly Kevin Michael, Ph.D is the true pioneer in fit testing and a great source for anyone interested in the technologies out there today.

I believe HPD fit testing is essential to an effective hearing conservation program. Simply using NRR for HPD selection is as archaic as the tuning fork for hearing testing. Considering current damage risk criteria, if you protect employees at work, it is highly unlikely they will incur a daily dose equivalent to 50% off the job. Only fit testing will establish if their PAR is in the safe range at work.

After several years not participating at NHCA I have attended recent meetings exhibiting our CavCom product lines. The quality of the professional presentations and the growth of the Association are extremely impressive. It is terrific to see the rapidly growing industrial contingent and military participation as well as the audiology community. What a difference from 1977!