

Sidelights

Engineering honor

Renville H. McMann, Jr., who was chosen to receive the Engineering Achievement Award of the National Association of Broadcasters has been close to the leading edge of broadcast technology from the very beginning of his career. In fact, he began his career working for Maj. Edwin H. Armstrong, the inventor of FM. Since that time, he's been awarded three Emmys and 37 patents related to broadcast engineering, including such key developments as the first "minicam" and a compatible high definition TV transmission system.

McMann spent much of his career working for CBS. In 1955, he joined CBS Laboratories, which later became the CBS Technology Center and which was recently shuttered and the property sold to Walden Books. When the eminent Dr. Peter Goldmark retired as president of the labs in 1972, McMann succeeded him. He moved to Thomson-CSF in 1975 as president, but rejoined CBS five years ago as vice president, advanced television research.



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Now 59, McMann is "quasi-retired" but is involved with "some TV projects" and FMX, the noise-reduction system developed for stereo FM. The noise-reduction system, invented by Emil Torick, also formerly of the CBS tech center, and Tom Keller, senior vice president science and technology, at the National Association of Broadcasters is now being debugged.

While there have been stories in the trade press about problems with FMX,

McMann says that the problems have been licked. These revolved around multi-path distortion and noise in non-FMX FM receivers (FMX is compatible with existing FM receivers). McMann is a consultant on FMX matters and one of the investors in the product, which will be funded by CBS, the NAB and some other outside investors.

Also receiving McMann's attention these days is HDTV. He played a leading role in the development of a CBS high-definition system that was an integral part of the company's DBS application. The original description of the system in the DBS application was vague about many HDTV aspects, but in September, 1983, McMann and two colleagues at the tech center described it in some detail at a meeting of the Institute of Electrical and Electronic Engineers' Broadcast Group (see TV/RADIO AGE, November 21, 1983).

In being part of a DBS service, the CBS HDTV version was a *transmission* system—as opposed to a *production* system, such as the Japanese 1,125-line system, which CBS still supports. The CBS proposal for HDTV was a 1,050-line, two-channel satellite system, one channel being a "compatible" channel, the other being an "augmentation" channel. The first channel would be receivable by a standard TV, 525-line set (with converter), the first and second with a 1,050-line HDTV/DBS receiver. There was also provision for an "enhanced," 525-line picture, requiring a special DBS receiver, since the compatible channel was transmitted via a time-multiplexed *component* signal (as was the augmentation channel), thus providing better color rendition.

CBS continued to work on the system and McMann says that the company was ready to spend a considerable sum on perfecting it before the expensive "buy-back" of CBS stock following Ted Turner's acquisition threat.

Chairs HDTV subgroup. McMann is intimately involved in HDTV currently as he chairs the HDTV subgroup of the Advanced Television Systems Committee. Whatever the result of broadcaster efforts to keep broadcast HDTV alive via the allocation of UHF channels, McMann feels that eventually HDTV will make it in the broadcast realm, rather than through a closed system, such as cassettes. "I wouldn't buy a \$2-3,000 set and then get my programming at a video store. I'd want it over-the-air, free." He believes broadcast HDTV will be kicked off in bars. "Once one bar gets it, they'll all get it."

In the meantime, he says, his ATSC subgroup, working with SMPTE on a production standard, is "starting" to assume that, despite the efforts of Eu-

ropeans to develop a compatible HDTV system (compatible with their 50-field standard), the 1,125-line system will become the de facto production standard. As for a transmission standard, the subgroup is studying three different possibilities: (1) the Japanese MUSE system, which squeezes the 1,125-line system down from 30 to 8-9 MHz of bandwidth; (2) the compatible system developed by Dr. William E. Glenn of the New York Institute of Technology, which supplements the 6 MHz NTSC signal with additional material on a separate 3 MHz channel to form an HDTV picture in the home (with a TV set frame store, as in the MUSE transmission) and (3) a system developed by the Delray Group, a high-tech R&D venture, which McMann says, is a system "vaguely related to MUSE."

Minicam role. Among McMann's proudest accomplishments is the development of the minicam back in the late '60s. He notes that CBS was the first to develop a true miniature camera. The portable, which still weighed around 40 pounds, McMann recalls, employed digital controls and Plumbicon tubes. It became the Philips PCP-90, won an Emmy and was used during the '68 political conventions.

McMann also earned a patent for a sequential color camera with scan converter used to bring back pictures from the moon. The prototype was built for NASA, and the cameras were manufactured by RCA and Westinghouse.

The former CBS engineering executive holds a number of patents related to signal processing, including audio processing, color TV processing, image enhancement, digital noise reduction for TV and a color corrector for TV cameras. The noise reduction and color correcting circuits also won him Emmys.

Radio Hall of Fame

ABC newsman Robert Trout, semi-retired and living in Madrid, Spain, doesn't make many personal appearances in the U.S. these days. But he's expected in Dallas today (March 30) for induction into the National Association of Broadcasters' Radio Hall of Fame. The Hall will also honor the late Gordon McLendon and Robert Todd Storz, both of whom were instrumental in developing the top 40 format.

Trout, a veteran of all three networks, has been a special contributing correspondent for ABC News since 1974, working on both the radio and TV sides. He began his radio life in 1931 at WSJV, Mount Vernon Hills, Va. (to become WTOP Washington), and spent most of his career at CBS. He's covered