Biographical Note

John W. Caluger

SMPTE Governor

Southern Region

1984-1985

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John W. Caluger is an SMPTE Governor for the Southern Region. His professional career began in 1963 when he joined WDCN-TV as a staff engineer. In 1969, he moved to WSM, Inc., where he served as project engineer for the Opryland Complex of Nashville, as chief engineer for Opryland Productions, and as assistant director of engineering for WSM, Inc.

Currently, Caluger is a consultant, specializing in the design and installation of broadcast television systems. He has been widely recognized for his achievements in his chosen field. In 1976, he was awarded an Emmy, the Utah Scientific Plaque, for conceptualizing CSP 200/300 control panels.

In 1973, Caluger joined the SMPTE. He was awarded the Citation for Outstanding Service to the Society in 1982, for planning and organizing the 16th SMPTE Television Conference, the first time it had been held in Nashville. He has been continuously active in the Nashville Section, serving as manager, program chairman, and section chairman. He has been instrumental in arranging high-quality programs for the section meetings.

Caluger's hobbies include fishing and coaching Babe Ruth baseball. He also serves on the local CATV Committee.

"Being a member of the SMPTE has proven to be a great asset to me," Caluger said. He added, "the *Journal* has provided a means for me to stay current with technology, and attending conferences has provided me with a forum where I can express my views on improving existing technologies and on formulating emerging technologies."

Caluger noted that SMPTE's accreditation by ANSI as the National Standards Group for television and motion pictures, coupled with the FCC's present position of not imposing new rules or technical guidelines, has placed a great burden of responsibility on the Society. He added that manufacturers, end users, and the general public will all be looking to SMPTE as the catalyst for future technological changes.

Report on NAB '85

The National Association of Broadcasters' 63rd Annual Convention and International Exposition, held at the Las Vegas Convention Center and Hilton Hotel, April 14–17, 1985, set new records in several categories. It had more delegates (38,000), more exhibitors (678), and more square footage of exhibits (300,000 at the Convention Center and 25,000 at the Hilton). This was purported to be the world's largest display of broadcast equipment.

This year's theme, "Take Part... Take Pride," reflected the importance of broadcasting in everyday lives as well as industry pride in serving America. The NAB has a membership of over 4500 radio and 800 television stations, including all the major networks. Speakers at the convention included New York Governor Mario Cuomo, radio personality John Gambling, WOR, New York City, and FCC Chairman Mark Fowler.

At the Monday morning session, leaders in the battle against alcohol and drug misuse shared their strategies and successes. An audiovisual presentation provided ideas as to what broadcasters are doing to combat the problem. A panel discussion followed among several members of the U.S. Congress on the proposal to ban beer and wine advertising from radio and television.

Engineering meetings and workshops on a variety of topics of interest to broadcast engineers were held throughout the convention, as well as a special Engineering Luncheon on Tuesday, April 16.

SMPTE Digital Recording Working Group Chairman Frederick Remley, University of Michigan, speaking on digital television tape recorder standards at an engineering meeting.

We are grateful to Joseph Roizen, president, Telegen, Inc., for supplying much of the information used in this article.

The registration area at NAB '85.

SMPTE Booth

The Society was represented at the convention with a booth. SMPTE Executive Director Lynette Robinson, Manager of Engineering Alex Alden, International Standards Coordinator Peggy Caggiano, and Television Engineer Barry Detwiler were on hand to answer any questions about the Society. The booth featured test film materials and a display of component television diagrams. SMPTE publications were available for sale, and members and/or prospective members were welcome to stop in and visit.

Equipment Exhibit

The exhibit seemed to indicate that TV stations are alive and prospering, even with the wide spectrum of incompatible technology that exists today. Some of the equipment displayed is mentioned below.

VTR Carts

NAB '85 saw the introduction of several new VTR cart machines to compete with Sony's Betacart in automating spot commercials on the air. Manufacturers were either introducing new equipment or proposing a future product that would cater to the broadcaster's need for cost-effective, fail safe, commercial message automation.

RCA introduced the TCR-500, which holds 281 VHS M-format cassettes, or 93 hours of programming, from a potential library of 65,000 cassettes. Asaca exhibited a cart machine which could handle either the M or Beta format cassette, letting the user choose the format. Ampex showed a potential tape machine using 19mm (¾-in.) tape and digital recording techniques, and implied that a product tailored to users' needs was a year away from demonstration and two years from delivery.

Other cart machines were Lake Systems' LA-Kart, which essentially combines player/recorders in the VTR format of the user's choice (U-Matic, M, or Beta) with a control system to sequence them properly. Panasonic had an upgraded version of their M-format decks, assembled in the U.S. by Merlin Engineering. It is evident that the principle of automating television programming is here to stay, and that the competition to get the broadcaster to adopt one or the other of these systems will grow even fiercer.

VTRs

Panasonic showed their M-II ½-in. format VTR, both at the exhibit and privately at the Las Vegas Hilton. When NHK, Japan's national network and owner of over 350 quad machines, wanted to replace them, it put out an R&D bid for a completely new studio VTR based on a cassette configuration. Matsushita won the contract to develop the VTR, called the AU-600. This VHS-style cassette uses a special iron-particle tape developed by Fuji having a coercivity of

Visitors to the SMPTE booth took advantage of the opportunity to examine copies of the Society's publications.

The SMPTE booth drew many visitors during the four-day convention.

1500 oersteds (at least double the current VHS and Beta tapes), giving it a real advantage over other analog VTRs. Although the M-II format is similar to the Sony Beta tape-scanning configuration, it processes the signal differently. It remains to be seen whether a family of compatible M-II machines will be created.

In a suite in the Tropicana Hotel, a Sony digital VTR was exhibited using 19mm cassettes that conformed to the SMPTE/EBU proposed standard for the digital machine of the future. It is capable of 20 generations without picture degradation and 4 channels of digital audio in the center of the tape. The prototype machine also produced excellent quality stop motion and easily recognizable images in slow or accelerated motion, thus making editing with the DVTR as practical as with the analog machines.

Cameras

The major manufacturers announced some enhancements to existing models or introduced newer versions of familiar units. RCA again featured their CCD-1 camera, which has been improved since last year. The current cameras have new features including gain settings of 12 and 24, rather than the former 9 and 18. RCA has a backlog of over 50 units, and can guarantee delivery of the cameras at a rate of 5 a week.

Computer Graphics

NAB '85 featured a more affordable range of computer graphics devices from both well-known companies and newcomers. Aurora Systems had a unit built around the IBM PC/AT (the AU-75), at a price which was less than half that of their NAB '84 system, and almost as capable. Quanta and Chyron introduced new electronic paint systems, while firms who are unknown in the broadcast field, like SNV, Fairlight, Cubicomp, DiaQuest, and Time Arts, had even more economical systems on display. This would enable even the smaller TV stations to get into the act.

Computer graphics in television is now divided into two camps, at markedly different price levels. The higher-priced systems carry a price tag of over $100,000 and fit into major studio operations. At the other end of the scale, the low-end systems can be bought for under $10,000, but their capabilities are somewhat limited.

Other Equipment

Editing equipment abounded. Analog component switchers attracted a lot of attention, as did high-definition TV, although not much is being sold in these categories.

Teletext was again in evidence at several locations in the show, demonstrated by TDF, Norpak, and WST. More receivers with smaller and less expensive decoders are coming out. Zenith has announced that they will also make the NABTS decoder.

At the Hilton, two exhibits of special camera accessories were held. A new company called Schwem showed a lens accessory called the Gyrozoom 60/300. It fits most ENG cameras, and will stabilize any image on the attached camera. Nisus showed a shuttered Ikegami camera that could produce super slow motion by variably slicing the exposure time.

Conclusion

Delegates to NAB had their choice of interesting exhibits. There was an abundance of equipment to choose from, whether selected to upgrade existing facilities or to build new ones. Conversion to multichannel sound will be an important item in the next few years, along with computer graphics and allied devices. Altogether these are exciting times in the television industry.

View of exhibit floor at the NAB convention.