

# Section Meetings

## Chicago May 18, 1999

The May meeting, held at WBBM-TV Studio One, attracted 50 guests from the SMPTE and SBE Chicago organizations. Stephen Mahrer, Panasonic, provided an overview of the infamous Table 3 of the FCC ATSC document. His main point was that television is now a multiformat application. Mahrer illustrated by differentiating the HD formats from SD formats, the key differences being resolution, aspect ratio, and progressive versus interlaced. In the world of DTV/HDTV, format conversion will occur all along the production/transmission/reception path. Form conversions are not necessarily transparent, therefore, the number of conversions should be kept to a minimum and avoided until the very last steps of the entire process. Mahrer suggested that interlace leaves a very definite footprint on video material, so acquisition in progressive is best where possible. Spatial interpolators, the main process in format converters, operate best on progressive material. Also, compression is more efficient for progressive material. These were some of the key reasons for endorsing the new 24p format for HDTV. On the consumer side, displays represent another source of conversion. Plasma displays are inherently progressive, while CRT displays are interlace. He pointed out that displays have limited resolution based on the construction of the plasma and CRT components. Thus, a format is often presented to a given display and that device performs a conversion.

In summary, Mahrer indicated that many issues must be addressed before the full benefits of DTV/HDTV are realized. Panasonic demonstrated various displays and formats after the presentation. The material shown was acquired in a variety of formats to illustrate native and converted results.—Steve Robinson, Secretary/Treasurer

## Detroit April 13, 1999

Kodak recently launched the Vision 800T Color Negative and Vision Print films. Pamela Zeh, a Kodak sales and engineering representative for over 26 years, described the new film and stock and discussed the advantages of these products for the motion picture industry. She presented samples of scenes shot with the new film stock and demonstrated how the fastest motion picture film ever made can help filmmakers

enhance their creative techniques. The presentation was followed by a Q & A session.—Helge Blucher, Secretary/Treasurer

## Detroit May 11, 1999

Sandy Corporation hosted the May meeting. Every year the NAB convention in Las Vegas delivers exciting innovations to the broadcast industry, and with the increasing deployment of digital television, this year was no exception. Members and guests attending the meeting were given an update on the latest in various areas of broadcast technology, by several participants at the NAB show.

Helge Blucher, WTVS, presented an overview of the proceedings at the PBS Engineering Conference, held just before the NAB show. Bob Zeichner, Rosco Michigan Inc., Wallace Murray, Ameritech, Mark Anzicek, Zen Technologies, and Len Eden, John F.X. Browne Associates, discussed some highlights of this year's convention and what they had seen in their respective areas of interest at the exhibits. The presenters covered all areas of broadcasting from cameras to transmitters. Len Eden also commented on the latest DTV reception studies that his firm has been involved in. The presentations were followed by a lively and informal Q & A session.—Helge Blucher, Secretary/Treasurer

## Montreal/Quebec May 26, 1999

The Section held its annual one-day tutorial, which was entirely devoted to high-definition television technology. A number of speakers involved in various aspects of the television industry in Canada addressed an audience of approximately 60 people.

The theme was High-Definition Television—The Technical Challenge. Daniel Bienvenue, CFCF-TV, began the program with a brief introduction. Luc Dussault, Dussault Inc., followed with a detailed presentation on recent tests highlighting the potential for HD origination in the traditional 35mm production world. François Garcia, Behavior Studios, then gave his views and some background information on the application of high-resolution images in the post-production world. Aimé Saint-Onges, Vision Globale, briefly discussed the issue of dealing with international standards and formats and explained the aspect of film origination and transfer to HD media. The morning session concluded with a panel of three independent sector producers, who gave their views on

## SMPTE SECTION CALENDAR

### Rocky Mountain

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### Dates for future meetings:

**July 14:** Ninth Annual Picnic at Lookout Mountain

**August 18:** Backup Power. Dennis Roundtree, Plannergy, Inc.

**September 15:** Burst Communications Program

**October (TBA):** Rocky Mountain Film and Video Expo

**November (TBA):** Ceaveo Chapter Elections

**December 15:** Lunch at NDTA, 12 noon

the impact of HDTV and DTV in their day-to-day realities. Although they recognize the inevitable migration to HD, they are concerned with the current lack of demand by broadcasters for the new formats. They expect to adapt to demands, but do not believe they are the driving force in the introduction of new technologies. Still, they do expect manufacturers and service houses to be ready to deliver the goods the moment broadcasters request content in the new formats. They are also very interested in the ancillary features of DTV, such as Internet-related functions and datacasting, not to mention the potential interactivity brought about by the new digital streams that accompany regular programming.

The afternoon session was devoted primarily to the technical aspects of HDTV. Michel Poulin, Leitch Inc., elaborated on the characteristics of the HDTV production and transmission standards presently available. Michel Proulx, Miranda Technologies, detailed a typical transition scenario for the conversion of a television station from the present technology to a DTV/HDTV environment. He mentioned various options available to broadcasters having to deal with the complexity of going digital, as well as accepting higher grade signals from American network sources that are heading the transition. Finally, Michael McEwen gave a presentation on the status of DTV implementation in Canada and around the world, and touched on how production and distribution segments of the industry will benefit from this new technology.

The tutorial was attended by a variety of technical and production specialists from



Steve Garfinkel (l), Martin Silverman (r) at the New York meeting in April.



Sol Negrin, Cinematographers Local 800 (host), New York section meeting.

both public and private organizations in the Montreal area. The presentations were held at the Ex-Centris Complex, which is devoted to providing state-of-the-art-screening facilities for both traditional and new media.—Michael Yeon, Chairperson

### **Nashville May 20, 1999**

The May meeting took the form of a brief but inconclusive discussion of NAB and the new direction in which the broadcast business is headed. The general consensus is that converting to DTV will take longer than expected. Kent Gratteau, Shop at Home Network, gave a brief history of Shop at Home followed by a tour of the facility. Both the technology and professionalism of this company were an exciting experience for attendees.—Phil Arnold, Secretary/Treasurer

### **New York April 16, 1999**

Approximately 50 people of the television and film community attended the April meeting held at the Cinematographers Guild Hall. Martin Silverman, Mamiya America Corp., began the program with a hands-on presentation of the Sekonik L508 Cine light meter. As part of a lab exercise, each attendee was given a meter to demonstrate all its functions for both still and cine photography.

Jesse Rosen and Peter Able, Abel Cine Tech, followed with a presentation of the Aaton InDaw system. It was described as a method for digitizing field recordings to CD-ROM for the purpose of automatically synchronising the sound to film in a telecine session, as well as making the sound available for other post processes.



New York section meeting (left to right): Jesse Rosen, Steve Garfinkel, and Peter Able.

Although the attendance was not huge, it represented an excellent cross-section of film and television post professionals. The hands-on session also made this a very valuable meeting.—Bill Topazio, Secretary

### **Pasadena City College Student Chapter April 27, 1999**

The April meeting, which was the last for the spring semester had 22 in attendance. After brief announcements by Brian Klepek, student chairperson, Nigel Hamley, Toyota Corporate Television, began his presentation. Hamley is an active member of both SMPTE and the BKSTS. His training started as a film editor in the U.K. and his career in the industry has taken him to many countries. Hamley explained that when he started in the industry, tape operators were required to have an engineering degree. On many occasions component level trouble shooting was expected in the field. He worked with a

company that did the first live broadcast mix for the "Beatles," and worked on other sound projects for the "Rolling Stones" and the "Who." Currently, he is contracted to develop and resolve engineering concerns and operations for Toyota.

Hamley prepared a visual presentation to illustrate the differences between television in England and the U.S. The first slide read, "Where Art Meets Science," and Hamley explained that this is a common thread in both countries; however, in England, there is only one union guild (The Association of Cinematographers Television and Allied Technician) within the industry, and members under the guild's structure can work in any job in which they are qualified. Entry into the guild is dependent on one's conduct for a two-year probationary period. During this time, a temporary card is issued only if a person can convince the association that he/she is capable of becoming a trainee. A trainee is then given a mentor who is directly responsible for that person's mistakes.

The next slides focused on technical and

creative excellence. For example, just as a tape operator is expected to have the aptitude for maintenance, every person plays an important part on the creative team. According to Hamley, you must take your territory and try to do the best to optimize the final product. He said we learn from our mistakes and should try to utilize work as a productive training environment. Hamley also gave some insight on educational issues. He said every situation should be a learning experience and it would be helpful to try to guess the next edit, the next cut, or the next clip that ties into the core material. He also suggested that students learn to do things on paper in the form of diagrams, illustrations, schematics, and floor plans if necessary. He pointed out that it is a privilege to learn from someone else's experience in one's profession, therefore trainees should make the first effort to show that they want to learn from the experts.

Hamley then discussed creative development. This area covered script writing, production, implementation, shooting, and editing. Creative development is a balance of all programming commercials, and intro's and outro's. It is important that all pieces fit perfectly. He said creative development is also a part of the technical end, with emissions, transmissions, distribution, etc. This is affected by how technology changes quickly in the industry. For instance, SMPTE plays an important role in developing industry standards. Hamley showed an illustration of a BBC satellite feed of a Casius Clay Championship Fight from the U.S. to the U.K. It depicted a signal diagram of video uplinking via satellite and audio on telco-phone lines under the sea. Hamley noted that the pictures were out of sync by a delay of one second, because the audio was arriving quicker than the video information. His ingenuity took

over, and he varied the speed of the capstan motor in the tape machine to correct the delay. Prior to this technology, a courier would have been used to get the tape to viewers in the U.K.

The final slide was a current worldwide television standard. Hamley talked about the Motion Picture Expert Group and their important role in the evolution of digital television. The presentation was followed by a Q & A session.—Brian Klepek, Student Chairperson

## San Francisco May 1999

Over 30 members and guests attended the special annual meeting on the campus of Napa Valley College (NVC) for a demonstration of the updated Tektronix Picture Quality Analyzer, the PQA-200 for MPEG encoding and compression, and the Tek PDR-300 MPEG-2 Profile fileserver. NVC Telecommunications Technology Coordinator Gary Vann, and the Napa SMPTE Student Chapter, chaired by Bob Davis, co-hosted the meeting with Charles Hintz, Past Chair of the San Francisco section.

The number of qualified technicians able to troubleshoot increasingly complex digital gear and processes seems to be declining relative to the need. Therefore, more expertise is needed for testing hardware and software. Jim Edwards, Tek's Measurement Business Division, demonstrated one solution to the problem of properly encoding MPEG video streams by using the PQA-200, which looks at various levels of compression severity and provides a visual display of video artifacts.

Ken Royer, Tek's Video Networking Division, contributed to the audience's understanding of the PQA process. Using hardware demonstrations, Bill DeMay, Tek

Measurement Division, explained the theory of the device in a tutorial that especially interested the NVC students in attendance. Many of them will soon be facing MPEG compression challenges as they enter the workforce.

The PQA looks at samples of video clips over a period of several seconds and provides both objective and subjective measurements of digital and analog parameters. The demo clearly illustrated that channel capacity—the number of Mbits/sec required for an unimpaired picture—is scene dependent. A numerical picture-quality rating based on the Sarnoff Labs' research of human perception helps a variety of MPEG operators make what would otherwise be totally subjective decisions about encoding and compression choices.

Several methods to feed back corrective information to the MPEG compressionist are available. Jim Edwards showed how an MPEG compression engine trying to save bits could easily get confused and automatically eliminate important elements from the picture such as birds flying in the background. Snowfall and rain also represent challenges to the MPEG compression process. A pre-filtering decision on the part of the compressionist can recover some of the necessary picture elements by compromising overall detail.

In addition to the presentation and an outstanding technology display, Tektronix also brought a variety of tutorial publications, including "White Papers," which were distributed to those in attendance. After the Tek presentation, students from the telecommunications program gave tours of the Napa Valley College television training facility. Napa's leading-edge, two-year program successfully places almost 100% of its graduates in video engineering positions around the country.—Peter Hammar, Secretary/Treasurer

# Calendar

## SEPTEMBER

IBC99, Amsterdam, the Netherlands. Info: Gina Christison, IBC Office, Savoy Place, London WC2R OBL, U.K.; tel: +44 (0)171 240 3839; fax: +44 (0)171 240 3724; e-mail: show@ibc.org.uk; website: www.ibc.org.uk/ibc. *September 10-14, 1999.*

## NOVEMBER

ASA, 138th Meeting, Columbus, OH. Info: Acoustical Society of America, 500 Sunnyside Blvd., Woodbury, NY 11797; tel: (516) 576-2360. *November 1-5, 1999.*

## SMPTE ACTIVITIES

SYDNEY, AUSTRALIA—SMPTE99, Darling Harbour Convention Centre. Info: Expertise Events, P.O. Box 295 Brookvale NSW 2100; Australia; tel: +61-2-9935-4445; fax: +61-2-9935-4229; e-mail: smpte99@expertiseevents.com.au; Register online/information via website: www.expertiseevents.com/smp99. *July 13-16, 1999.*

MILAN, ITALY—SMPTE 1999, International Conference, *October 14-15, 1999.*

NEW YORK, NY—141st SMPTE Technical Conference and Exhibition, *November 19-22, 1999.*

SAN FRANCISCO, CA—34th SMPTE Advanced Motion Imaging Conference, *February 3-5, 2000.*

For more information on these and other SMPTE activities contact SMPTE Headquarters: 914-761-1100; fax: 914-761-3115