

# Section Meetings

## Ohio

**September 30, 1998**

A joint meeting was held with the Society of Broadcast Engineers at Ohio State University's Fawcett Center for Tomorrow, which houses the WOSU-TV plant. The subject was the Harris-PBS DTV Express Van on display in the center's main parking lot.

The Harris-PBS DTV Express, with major sponsorship by Philips, is a new traveling educational initiative designed to inform broadcasters, educators, and legislators about the transition to digital television. The 66-ft demonstration vehicle showcases a functional DTV broadcast facility (an end-to-end system) as well as the applications and opportunities available to viewers in the home environment. On-board operational demonstrations of the major components of a working digital television station, from production to transmission, included DTV transport stream generation and switching and an RF system facility demonstrating co-channel and adjacent channel operation and interference issues, using actual DTV receivers.

WBNS-DT, the local Columbus CBS affiliate, a fully converted digital HDTV plant, fed a special playback to the express van's HDTV receivers on its digital Channel 21. It consisted of a few minutes of the first digital HDTV program, the Ohio State versus West Virginia football game, originally broadcast on September 5 on CBS. The difference in aspect ratio and clarity impressed many of the members who had just recently been able to view the game on regular NTSC receivers.

Especially interesting to the 90 attendees on the DTV Express tour were models of "The Living Room of Tomorrow" and "A Classroom of the Future." The tour groups then moved inside to a conference room for a panel discussion and lively question-and-answer session on the topics of DTV broadcast applications, the integration of the DTV Express vehicle, and the current state of HDTV receiver availability.—Gene L. Batey, Secretary/Treasurer, Ohio State University

## Chicago

**October 6, 1998**

Eighty guests attended the 1998-99 season kick-off meeting of the SMPTE, SBE, and ITS Chicago chapters. Held at Essanay Studios in conjunction with Fletcher-Chicago's HDTV Production Symposium, the program began with a trailer of a locally produced film being aired on network TV later this year. The film was originally shot in HD, finished in video, and transferred to film. Gordon Quin, Kartemquin Films, one of the producers, discussed various issues concerning HD acquisition and aspect ratio management for airing on 4:3 TV. Next, Larry Thorpe, Sony Electronics, spoke on Sony's participation in developing the newly proposed 1080p at 24 frames/sec HDTV standard and its value worldwide. All common standards of DTV, 1080i, 720p, 480i, and 480p in various frame rates can be derived from it; therefore, producing at "1080p24" affords the best possible way to preserve the master without concern for future compatibility. In some cases downconversion to a particular standard should be of a higher quality than if acquisition and post were performed in that standard. 1080p24 is also aligned with the proposed MPEG 4 and MPEG 4:2:2 Profile @ High Level.

Closing the program, Don Miskowich, Sony Pictures Hi-Def Center, showed a film comparing several examples of scenes shot in a variety of video formats from DV through HD quality and then recorded to film. One important element of his company's process is called M-Mode. It de-interlaces each video frame and performs an electronic process to create a superior film frame. Miskowich then discussed the value of performing certain post-production processes using high-definition realtime video equipment versus non-realtime workstation's.—Steve Robinson, Secretary/ Treasurer, Serial Scene

## Detroit

**September 15, 1998**

Chief engineers and engineering representatives from most Detroit television

stations gathered at WKBD-TV Channel 50 to discuss their plans for implementing DTV in the nation's ninth largest market.

Section Chair and panel moderator Frank Maynard introduced the other six panel participants to the 50 members and guests in attendance. In addition to the stations' engineering representatives, John F.X. Browne, John F.X. Browne and Associates, participated and opened the meeting with a report on some of the latest DTV reception testing being conducted around the country. Browne also pointed out some of the discrepancies in the FCC's calculations of interference by DTV into NTSC.

Maynard, representing UPN affiliate and meeting host WKBD, stated that his station is currently taking a "wait-and-see" approach to DTV. Mike Doback of ABC affiliate WXYZ promised that his station would be on the air by November 1 of this year. The station is going to use a side mounted antenna for their DTV signal. Phil Hejtmanek of CBS-owned WWJ is in the process of building a new tower for both NTSC and DTV and expects to be on the air with DTV in May 1999.

Tim Redmond of FOX affiliate WJBK reported progress on tower

## SMPTE SECTION CALENDAR

### Rocky Mountain

For further information contact Section Chair Fred Baumgartner, TCI, tel: (303) 486-3946, fax: (303) 486-3891, e-mail: baumgartner.fred@tcinc.com

### Dates for future meetings

January 20, 1999: Back-up Power Systems

### Toronto

For further information contact Promotions Adviser Brad Fortner, Rogers Communications Center, Ryerson Polytechnic University, tel: (416) 237-0625, fax: (416) 979-5203, e-mail: bfortner@acs.ryerson.ca

### Dates for future meetings

December 8: 3-D production Systems  
Featuring SoftImage  
January 12, 1999: Satellite Meeting

upgrades and installation of its side mounted DTV antenna. The station is also committed to being on the air by November 1. Marcus Williams of NBC affiliate WDIV had hoped to join the others with a DTV signal on the air by November 1, but reported that his station is now looking at May of 1999 as its DTV startup date, also with a side mounted antenna.

Helge Blucher, representing public broadcaster WTVS, explained that although his station has secured a spot on WWJ's new tower and purchased an antenna and 1100 ft of transmission line, financial limitations make it necessary to hold off on buying a transmitter until spring of 2000. However, a more enthusiastic acceptance of DTV in the Detroit market may accelerate their plans. WWJ and WTVS will be sharing a stacked Dielectric antenna, which will be installed on WWJ's new tower early next year, for channels 43 and 44 DTV transmissions.

The discussion then turned to the issue of multipath, with panel members agreeing that this was an issue to be watched closely. Recent tests done in two areas created a lively exchange of opinion between panel members. Those performed in Washington, D.C., were characterized as "typical," while the Chicago tests appear to be unique to that city. "We'll know after November 1 if viewers in Detroit will have severe multipath reception problems" was the final comment on that subject.

The next topics, plant upgrades; DTV recording; upconversion; and progressive versus interlaced, prompted several questions from the audience. The stations are divided on their use of 780p and 1080i for HDTV. Most of the station infrastructures are now digital or are in the process of converting their facilities. Public broadcaster WTVS has plans to build a new facility within the next few years and will only do minor upgrades in its current NTSC analog plant.

The second part of the meeting presented an opportunity for attendees to direct questions to panel members about DTV plans and about their views on the lack of interface standards for DTV sets. Finally, members of the audience were asked how many considered buying a DTV receiver before May 1999. Only a handful said they would; others suggested that prices would have to drop well below \$2000 before they would buy a DTV

receiver.—Helge Blucher, (Secretary/Treasurer), WTVS, Detroit Public Television

## **Hollywood** **September 15, 1998**

The Hollywood Section was joined by members of the AES for a presentation on "Sound Preservation, Restoration, or Remastering" by Bob Heiber and Jim Young from Chace Productions. Based in Burbank, CA, Chace Productions has specialized in work on archival soundtracks since 1981. Recent projects have included *Gone with the Wind*, *The Big Chill*, and *Planet of the Apes*.

The meeting began with definition of the three terms in the title. Preservation is the copying of at-risk material for long-term storage, without any attempt to correct or improve it. Restoration is a procedure where artifacts that are the result of wear and tear through prolonged use or of deterioration of the medium are corrected. Remastering involves the correction of deficiencies in the original recording by means of technology that was unavailable at the time.

A number of proprietary techniques have been developed at Chace to de-noise, de-pop, and revitalize sound tracks. Among those techniques are C.O.S.P. (Chace Optical Sound Processor), which occurs when an optical track is scanned with a custom video camera, allowing subsequent clean-up of the video signal and transfer back to audio. Many examples of sound tracks "before and after" restoration and remastering were played for the audience.—Alan Masson, (Manager), Eastman Kodak Co.

## **Nashville** **September 17, 1998**

The Nashville Section meeting was held at Watkins Film School. Section Chair Bill Spencer welcomed 26 attending students with a brief explanation of the Society and encouraged the students to consider organizing student chapters. Doug Mitchell, faculty advisor of Middle Tennessee State University's Student Chapter, spoke of the unit and also encouraged audience members to initiate chapters at their institutions.

Van Fleisher, Watkins Film School,

reviewed the history of the school which has existed for more than 100 years. Started by Samuel Watkins to strengthen the city's arts with free lectures and classes, it was renamed Watkins Institute College of Arts and Design, and then changed to Watkins Film School in 1995. A tour of the facility was followed by a discussion of the classes and projects that the students were involved in. Fleisher noted the tremendous support from the Nashville film community and urged everyone to lend support to the students interested in learning the profession.—Phillip J. Arold, Secretary/Treasurer, Phil Arnold Sound Services

## **New York** **September 22, 1998**

Approximately 100 attendees filled the spacious and comfortable Bell Atlantic auditorium in midtown Manhattan for the Section's first meeting of the 1998-99 year. The program, titled "Telecine: A Report on the State of the Art," featured representatives from the major players in the telecine field.

Sam Alexander, Cintel, opened the meeting with a presentation of the new C-Reality. He described the new technologies employed in the photosensors and color processing channel, and explained why the company chose to stay with flying-spot scanning. The unique features of this telecine are the sophisticated Color Vector Processor, the new Brimar CRT package, and the new solid-state sensors for image and burn/shading.

Next, Dave Bancroft, Philips, went through the fundamentals of the Spirit Datacine. He reviewed the CCD and broadband light source technologies and discussed the operation of the spatial interpolator which is the heart of Spirit electronics. He also talked about the concept of a "virtual telecine" model which decouples the actual scanning of the film from the remainder of the process, including submastering to HD and SD (525 and 625). The unique features of this device are the xenon light source and integration chamber, the Kodak-developed CCD line array and optics, and the spatial interpolator electronics.

Luke Freeman, Sony, concluded the meeting giving a good technical overview of the work-in-progress HD telecine being developed by the company in Culver City. This telecine is to



*Speakers at the New York Section meeting in September: (l-r) Luke Freeman, Sony; Dave Bancroft, Philips; Sam Alexander, Cintel; Rich Torpey, MTI/The Image Group and organizer of the meeting.*

be a production model based on the prototypes already developed for the Sony Pictures operation. Unique features of this telecine include an adjustable xenon light source, which provides a tailored light source similar to a lab printer, prior to the film gate, a frame-array CCD pickup, and a very unique method for sensing and stabilizing the film both mechanically (via an intermittent motion transport) and electronically (via a nifty capacitive sensing array and movable glass refraction plates).— Bill Topazio, (Secretary/Treasurer), Manhattan Transfer/Edit

### **Pasadena City College September 22, 1998**

Gerald Finn and Josh Ochs, Past-Chair, presided over the first meeting of 1998-99, designed to inform attendees about the Society.

Photocopies of articles and section meetings from past *Journals*, notices of Hollywood Section meetings, and the Fall Conference brochure were all handed out to show the benefits of student membership. Several students indicated they would like to sign up for membership at the conference and others took along membership application forms. Passes for the exhibits were distributed to individuals that elected not to attend the lectures at the conference.

The three candidates running in the chapter's election were introduced and given an opportunity to speak before the attendees. Ballots were distributed, collected, and tallied. Following the count of the ballots, Ochs introduced the new Student Chairperson, Brian Klepeck.—Gerald Finn, (Faculty Adviser), Pasadena City College

### **Sacramento Section September 30, 1998**

What a way to start the year! More than 50 people gathered at the NVision facilities in Nevada City, CA, for a discussion on high-speed silicon. Located in the heart of "Video Valley" are a number of companies leading the transition to digital.

Jim Mears, National Semiconductor, (formally Comlinear) spoke on the processes being used to manufacture ICs. Of note was a discussion of the tremendous costs associated with building new fabrication plants; the most recent installation in Maine was \$650 million. Mears touched on how other communications areas such as ATM, Gigabit Ethernet, and wireless radio can cross-pollinate the video field.

Gene Rice, Cypress Semiconductor, discussed the similarities of the European DVD effort and how it can relate to SMPTE transport: the same amplitudes, media, and data rates. Tom Palkert and Paul Duran, AMCC, then presented an analysis of jitter in digital video signals: the different kinds and where they arise. Their talk included detailed measurement strategies. Stimulating discussion centered around why the traditional "eye" pattern is lacking for good jitter analysis.

David Lynch, Gennum, presented a roadmap for the next dozen years with incredible predictions of 256-GByte circuits operating at 120 GHz; dies having features of .05 microns; packages having 5500 pins, and costs of 0.2 microcents per bit. A lively Q&A followed.—William Carlquist, (Secretary/Treasurer), Tektronix, Grass Valley Products

## **Calendar**

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### **SMPTE Activities**

ORLANDO, FL—33rd SMPTE Advanced Motion Imaging Conference, Omni Rosen Hotel, February 25-27, 1999.

SYDNEY, AUSTRALIA—SMPTE '99, July 13-16, 1999.

NEW YORK, NY—141st SMPTE Technical Conference & Exhibit, November 19-22, 1999.

For more information on these and other SMPTE activities contact SMPTE Headquarters: (914) 761-1100, Fax: (914) 761-3115

### **June 1999**

The 1999 Montreux Television Symposium and Technical Exhibition will be held on June 10-15, 1999 in Montreux, Switzerland. Info: Montreux International Television Symposium and Technical Exhibition, P.O. Box 1451, Rue du Theatre 5, CH-1820 Montreux, tel: +41 21 963 32 20, fax: +41 21 963 88 51, e-mail: message@symposia.ch, Internet: <http://www.montreux.ch/symposia>. June 10-15, 1999

## **Obituaries**

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### **Robert MacKay Fraser**

SMPTE has received notice of the death on July 26, 1998, of Robert MacKay Fraser at the age of 86. Fraser was a Life Fellow of the Society.

He began his career at NBC in 1937 as a development and project engineer and became involved in kinescope recording and other applications of photography to television. From 1958 to 1970, he was employed by Itek, where he designed cathode ray tube displays for hard copy production from computer processed data.

In addition to SMPTE, Fraser was a member of the Society of Photographic Engineers and Scientists.

### **Fred Porrett**

Fred Porrett, a Life Member, has died at age 87. Porrett was a retired cinematographer and had been a member of SMPTE since 1950.