

Editorial Meetings



Editorial Vice-President Maurice L. French at the Board of Editors Meeting.

Three editorial meetings were held at the 124th Conference on Tuesday morning, Nov. 9, 1982: The Board of Editors, the Papers and Publications Advisory Committee, and the Progress Report Committee.

The Board of Editors is one of the most important groups in the SMPTE. It is the job of members of the Board of Editors to review all papers submitted to the SMPTE and to determine their acceptability for publication. Because of the hard work and dedication of the members of the Board of Editors, the *Journal* has been able to maintain its high standards in the publication of technical material.

The meeting was presided over by Chairman of the Board of Editors Calvin M. Hotchkiss, Eastman Kodak Co. The group discussed a number of matters, including finding means to increase the number of papers submitted and how to assist authors in improving their papers. Among the decisions reached were to reinstate



Howard E. Wilkinson, Arthur Kaiser, and Calvin M. Hotchkiss.



Eric V. Knutsen, Joseph Roizen, and Raymond L. Hallows, Jr.



Richard S. Marcus, *SMPTE Journal* Editor Jeffrey B. Friedman, Franklin R. Reinking, and Janet A. West.

coding on the spines of the *Journal* so that persons who store *Journals* can easily identify the month of publication, and to continue to improve section meeting reports.

The Papers and Publications Advisory Committee met immediately after the Board of Editors. *SMPTE* Editorial Vice-President Maurice L. French, Canadian Broadcasting Corp., presided. The committee, which is involved in long-range editorial planning, discussed the new book that will be published in early 1983, following the TV Conference.

The Progress Committee then met, presided over by Chairman of the Progress Committee Robert M. Smith, Du Art Film Laboratories. The committee discussed the 1982 report, which is scheduled for the April, 1982 issue of the *SMPTE Journal*.



Editorial Vice-President Maurice L. French and Leonard A. Green.



Edward Blasko and Lincoln Endelman at the Board of Editors Meeting.



Arthur P. Willis and Edward H. Reichard.

Engineering Committee Meetings

The week of the 124th SMPTE Technical Conference is perceived as one of the most active and productive for the 26 SMPTE Engineering Committees and international groups taking the opportunity to hold meetings during the Conference. Synopses of the committee work in progress are presented herein, with additional information obtainable from Alex E. Alden, Manager of Engineering, at SMPTE Headquarters.

Committee on Film Technology

The Committee, chaired by Lincoln L. Endelman, Perkin-Elmer Corp., is charged with the development of standards in the basic areas of film technology (such as raw stock dimensions, position and dimensions of camera images on film, film image steadiness, etc.).

Since most of this committee's tasks have been completed, the group held a brief, well-attended meeting to finalize documents on graph paper used for sensitometric reporting, super-8 camera images, and international proposals for subtitles.

Mr. Endelman, as one of the U.S. Delegates to the ISO/TC 36 Meeting in West Berlin (Working Group-I specialist, the working group equivalent to our national committee), reported on the agreements reached at that meeting, which took place in May, 1982. One of the activities of this international committee is the study of image steadiness. The Chairman of the Image Steadiness Group, Karel Staes of Agfa-Gevaert (Belgium), reported on the development of this project and the methods under consideration for measurements.

At the request of NASA (National Aeronautics and Space Administration), the committee adopted a new subject — the study of the behavior of motion-picture film applications with future space shuttle missions.

Committee on Theatrical Projection Technology

Under the chairmanship of John P. Pytlak of Eastman Kodak, some 30 experts are fundamentally concerned with the theatrical presentation of motion picture releases.

Apart from the constant updating of current standards, the group is in-



Alex Alden and Michael Strong at the committee meeting on Sound.

involved with the development of new standards and test films to assist theater owners in giving their patrons the the best cinema presentation possible. Some current standards under review are: PH22.192 on 35-mm shipping reels, PH22.194 on 35-mm projector usage, and PH22.195 on the projectable image area for 35-mm prints.

Several test films supplied by the Society needed some modification to facilitate their use, and a group chaired by Paul Preo will study the recommended changes to P35-MR (Manager's Reel), and 35-PA (Projector Alignment and Image Quality) test films. The continuing problem of color-matching projection is being studied and a tutorial paper is in preparation. An extremely important and long-awaited list of guidelines for projection at technical conferences is nearing completion.

A paper entitled "Guidelines for the Design of Effective Cine Theaters," presented by Will Szabo at this conference, could effectively conclude the assigned task of this group.

Glenn Berggren expressed concern that the current projection of our films does not take full advantage of available technology, and he is preparing a report to the committee on the numerous ways in which high-definition projection can be achieved. The project includes the control of stray light, which often washes out the projected

image on the screen. In an attempt to assist in raising the presentation quality, the committee is updating the popular *Projection Manual* through a group of specialists under the leadership of Mr. G. Berggren and Mr. R. Woolrich.

Nearing completion, and generating interest, is a study by John Pytlak of the motion-picture system to determine where film damage is occurring. Film damage is a costly and visually annoying problem, and its analysis and possible improvement have resulted in a great deal of cooperation from all concerned (distributors, theaters, laboratories, and studios). The well-received preliminary report by Mr. Pytlak has been completed and will be made available in a slide/tape and videocassette format through SMPTE.

The committee is continuing to cooperate with the Inter-Society Committee for the Enhancement of Theatrical Presentation and is planning a joint effort through a "voluntary theatrical survey plan," which will consist of SMPTE members throughout the country reporting on conditions in the theaters in their areas. This program, through the cooperation of NATO (National Association of Theater Owners), will alert owners to many potential problems and areas for improvement as seen by the customers.

In addition to its activities on na-



A meeting of the Educational, Industrial, and Film Technology Committee, under the chairmanship of William Smith, Allied Film.

tional standards, the committee works closely with the ISO/TC 36 (International Organization for Standardization, Technical Committee 36 on Cinematography). Dr. Fred Kolb, Jr., who attended the recent meeting of TC 36 in West Berlin, reported briefly on the committee's achievements. (The report of ISO/TC 36 appears in the September 1982 *SMPTE Journal*.)

Committee on Laboratory Services Technology

The newly appointed Chairman of this committee, Blaine Baker, Motion Picture Laboratories, Inc., held a brief meeting to cover several questions dealing with sync marks and leaders.

A working group under Patrick Kurtz, Eastman Kodak Co., is completing a tutorial paper on the storage of motion-picture materials. The task includes a review of available documents from ANSI (American National Standards Institute), EBU (European Broadcasting Union), ISO (International Organization for Standardization), and film manufacturers.

A new working group is being established to study the possible documentation of the technology for special effects and optical printing.

Committee on Audio Recording and Reproduction Technology

This committee, chaired by Michael

Strong, World Wide Films, had the longest agenda yet achieved the remarkable goal of considering 25 subjects and 5 subgroup reports at its meeting.

Considered to be one of the most active subcommittees, the Production and Post-Production group, chaired by Don Wiegand, University of Southern California, meets regularly once every month. Comprised of audio executives, sound directors, and engineers from major studios involved in motion picture production, the subcommittee is concerned with the need to improve sound recording and reproduction. The subcommittee's agenda covers a multitude of questions faced daily in professional studio operations, covering subjects such as architectural design of auditoriums, electroacoustic parameters — measuring both reverberation and noise in regard to articulation, theater certification, and the many test methods and test films used for audio checking and adjustments.

The 25 subjects considered by the main committee included standards for numerous audio test films which are being brought into conformity with recently agreed-on international standards. Nearing completion is a set of documents specifying the use and location of photographic data tracks on motion-picture film. Maintaining a perpetual awareness of new developments, the group is continuing its

studies of the new means of recording photographic audio records, current developments in transfers from magnetic film to video tape, problems of mounting the LED (light emitting diodes) in camera gates for recording data tracks, and the increasing use of pink noise test records.

Work has begun under a new working group to develop specifications for the use of magnetics on film for post-production and other applications.

Committee on Television Video Technology

David Horowitz, as Chairman, from CBS-TV Network Engineering and Development, is currently reviewing with his committee the many questions and areas of interest within the technology as applied to live cameras, telecine, video signal handling and processing, display devices, and related control and automation.

A subcommittee on colorimetry has divided its work into three subgroups; color cameras, color monitors, and telecine systems. Currently, the subcommittee is studying the problem of multiplicity in colorimetric standards throughout the world, in the hope that a single standard might be possible for monitor colorimetry in broadcast and production operations.

The Study Group on Lens Interface Parameters headed by Philip Godfrey,

Engineering Committee Meetings

International Forum

Chairman: Fred Remley, Univ. of Michigan

Digital Control

Chairman: Robert McAll, Digital Video Systems

Digital Tape Recording

Chairman: William Connolly, CBS, Inc.

HDTV #4 on Equipment

Chairman: Charles Rhodes, Scientific Atlanta

Video Discs

Chairman: Dr. Kerns Powers, RCA

New Technology:

Chairman: Dr. Kerns Powers, RCA

HDTV #2 on Psycho Physics

Chairman: Irwin C. Abraham, NYIT Science and Research Center

Digital Implementation

Chairman: Frank Davidoff, Frank Davidoff, Inc.

Theatrical Projection

Chairman: John Pytlak, Eastman Kodak Co.

Lens Interface

Chairman: Philip Godfrey, ABC-TV Network

HDTV #3 on Distribution

Chairman: R. H. McMann, CBS Technology

Digital Standards

Chairman: Ken Davies, CBC

PMPEA Camera Mount

Chairman: Chad O'Connor, O'Connor Engineering

HDTV #1 on Production

Chairman: Donald Fink, Consultant

TV Video Technology

Chairman: David Horowitz

Laboratory Services

Chairman: Blaine Baker, Motion Picture Labs, Inc.

ISO Image Steadiness

Chairman: Karel Staes, Agfa-Gevaert

Digital Television

Chairman: Charles Ginsberg, Ampex Corp.

Component Analog Systems

Chairman: S. Merrill Weiss, KPIX

Film Technology

Chairman: Lincoln Endelman, Perkin Elmer Opt. Tech. Div.

Ad Hoc of VRRT

Chairman: David Fibush, Ampex Corp.

Audio Recording and Reproduction

Chairman: Michael Strong, World Wide Pictures

Educational Consumer

Chairman: William Smith, Allied Labs

Standards Committee

Chairman: Bob Hopkins, RCA

HDTV Study Group

Chairman: Donald Fink, Consultant

Video Editing Procedures

Chairman: Robert Lund, Teltronics



The Standards Committee, under the chairmanship of Dr. Robert Hopkins, RCA.



The EBU G5 Ad Hoc Group on Remote Control.

ABC, is continuing its original charge — to determine the feasibility of developing a common diascope test slide for use in automatic set-up camera systems. After a lengthy discussion, it was unanimously decided that standardization of the actual test pattern was not practical, because the pattern can be unique and proprietary to a camera manufacturer's design, and therefore would probably be most difficult to define. Three areas being considered for standardization by the group are:

- illumination level
- illumination color temperature
- flatness of field

It was decided to widen the scope of work to include the possibility of standardizing the camera/lens mechanical and electrical interface parameters along with the diascope parameters. To reach this goal, letters were sent to most of the major camera/lens manufacturers to solicit their reactions. The majority of manufacturers' responses were favorable (through representation at meetings or correspondence with key engineering people).

Subgroups have been formed, giving camera manufacturers the responsibility for electrical specifications, and lens manufacturers the responsibility for mechanical interface specifications. Agreement was reached among the members present that parameters

agreed upon by the committee are meant to be used in guidelines for future camera/lens designs.

The subgroup under the Working Group on Digital Control of Studio Equipment, chaired by Robert McAll of Digital Video Systems, held several

meetings three days prior to the main committee meeting.

The meetings included the EBU Ad Hoc Remote Control Committee, which with the subgroup produced draft document No. 4, Control Message Architecture. This establishes the



Tom Meyer, Chairman Bob McAll, Mike Stickeler, and Paul Jarrett at the SMPTE/EBU Joint Working Group on Digital Control held during the Conference.

general structure of the MESSAGE language, and includes the following:

- concept describing the “presentation” layer in terms of Virtual Devices
- command KEYWORDS applying to specified devices
- application of KEYWORDS referencing dialect of language
- definition of each KEYWORD applying to a particular class of devices

The general consensus reached by the Working Group is that the document produced by the subgroups of the EBU and SMPTE represents a significant step forward in establishing a Message Language document that will be acceptable to both the SMPTE under-committees and the EBU.

Work is continuing on document No. 3, covering network and transport.

The following two documents have been completed and are awaiting final approval by the SMPTE Board:

- SMPTE-207M, Proposed American National Standard Electrical and Mechanical Characteristics for Digital Control Interface
- SMPTE-RP 113, Supervisory Protocol for Digital Control Interface

Committee on New Technology

This committee, chaired by Kerns Powers, RCA, is charged with the study of new or advanced technology, or special consideration of contemporary technology, and divides its studies among six subgroups:

- *Study Group on Digital Television*
Chaired by Charles Ginsberg, Ampex Corp.
- *Study Group on High-Definition Television*
Chaired by Donald Fink, Consultant
- *Working Group on Digital Video Standards*
Chaired by Ken Davies, CBC
- *Study Group on Digital Television Tape Recording*
Chaired by William Connolly, CBS Television Network
- *Study Group on Digital Studio Implementation*
Chaired by Frank Davidoff, Consultant
- *Study Group on Applications of Video Disc Technology to Post-Production*
Chaired by Edward Efron, Discovision Associates

Study Group on Digital Television Tape Recording

Progress is being made in estab-

lishing the requirements for common carrier transmission of digitized component signals. These signals would be analog NTSC in the input and output of the common carrier interface, but the common carrier transmission would be digital. A major objective of the study group is to determine what inputs from SMPTE might be made available through the CMTT channels in preparation for the interim meetings of the CMTT in Geneva, Switzerland, during 1983. Reportedly, good participation from Canada in these discussions was recognized, but less than satisfactory participation from the U.S. common carrier was offered. Generally, it is felt that it would be advantageous to have a uniform North American position on digital transmission of television within the North American hierarchies of bit rates.

Working Group on Digital Video Standards

A joint meeting of this group and the EBU Ad Hoc Committee on Digital Video Interface met during the conference. The meetings proved to be successful, reaching an agreement on most of the critical implementation details for a digital video interface based on CCIR Recommendation 601.

The two groups will review a draft



Ken P. Davies, CBC, addresses the SMPTE/EBU Joint Working Group on Digital Control.

document on this subject at their meeting on December 8, 1982, with the final document to be presented at the SMPTE Winter Television Conference in February, 1983.

Study Group on Digital Studio Implementation

Formed by the Working Group on Digital Video Standards, this group is charged with the study of transition from analog equipment to component-coded digital equipment in television production, post-production, broadcasting, and other facilities using such equipment. The coexistence of analog, composite digital, and component digital signals in these fields is being investigated, as well as methods of coordinating operations among these various signals.

This group is also studying proposed operating practices, monitoring arrangements, testing arrangements, preferred interconnection methods, recommended equipment arrangements, potential performance levels, and situations that may cause picture impairments.

Study Group on High-Definition Television

With the recent increase of worldwide interest in the development of high-definition or improved television systems, Don Fink, Chairman of the Study Group, has enlarged his committee, which has been holding frequent meetings to keep up with the reported developments. To facilitate the study, Mr. Fink has divided the task into four subgroups: Group No. 1, on Production, under W. Hogan; Group No. 2, on Psychophysics under I. Abrahams; Group No. 3, on Distribution under R. McMann; and Group No. 4, on Equipment under C. Rhodes.

Study Group on Video Disc

The original group on videodisc studies was dissolved, as well as its Subgroup on Image and Sound Presentation, and a new study group was formed to study the application of direct read-after-write optical videodisc systems in their application to electronic post-production.

Committee on Video Recording and Reproduction Technology

The Ad Hoc Meeting of the Committee chaired by David Fibush, Ampex Corp., met briefly to consider the letter ballot to determine what



The Audio Recording and Reproduction Technology Committee.



Another view of the Standards Committee.

action should be taken to standardize the three professional videotape formats submitted to the Society and intended for combined camera/recorder applications. A consensus to provide documents on individual proposals was not achieved, and therefore, the issue is being held in abeyance.

Undoubtedly one of the most active committees, meeting approximately three or four times each year, the group considers questions arising not only through the review of current standards, but also from the rapidly evolving new technology in video recording. Subjects dealt with include helical recording test materials, specification for tapes and reels, editing procedures, archival storage, and time and control codes. A new Working

Group on Component Analog Interface was formed and charged with developing electrical and signal standards for the interconnection of equipment using component analog video signals in the 525/560 television system.

Active participation on any SMPTE Engineering Committee or subgroup is most welcome, and is encouraged for anyone who is interested in or affected by the standard under development. Those seeking additional information on the engineering activities should contact Roland J. Zavada, SMPTE Engineering Vice-President, or Alex E. Alden, SMPTE Manager of Engineering.

Authors' Lounge

The Authors' Lounge is the gathering place for all authors who present papers at the Conference Technical Sessions.

Approximately one hour before each session, the authors meet with the Session Chairman to discuss the details of staging their sessions. Authors have the opportunity to check out their audiovisuals prior to the session.

The Authors' Lounge was staffed by Mary Connolly, SMPTE Program Coordinator. She was assisted by Arthur Hansen, consultant, who tested all audiovisual equipment.



H. L. Zahn discusses his paper with Mary Connolly, SMPTE Program Coordinator.



Frank Reinking (left) views slides with G. L. Whittier.



Arthur Hansen, Richard King, and Gary Borton (left to right), discuss the audiovisuals for an upcoming session.



Paolo Zaccarian, International Television Session Chairman, and Dr. Richard Green, Co-Chairman for Television.



A. H. Jones, Joe Roizen, Max Rotthaler, and Simon Noteboom in the Authors' Lounge.