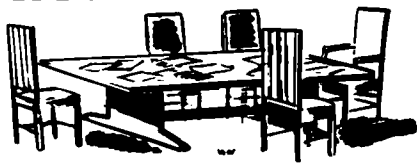


engineering activities



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This report is a brief résumé of major topics discussed and projects reviewed during meetings of the Engineering Committees at the Society's 84th Convention.

Film Dimensions

The meeting was devoted to items of new business and to a report of the recent International Standards meeting on items of interest to committee members. The committee agreed to undertake a request for the standardization of $\frac{1}{4}$ -in. magnetic tape with 16mm perforations. Perforated tape of this type is currently being used in new equipment both here and abroad. A subcommittee under the chairmanship of Harold Jones was formed to consider a standard for low-shrink film. This film is frequently referred to in American Standards relating to sound recording on film.

Dr. D. R. White, leader of the U.S. Delegation to the Harrogate ISO meeting, reported on items of interest to the committee (*Jour. SMPTE*, 67: 819-821, Dec. 1958). He said that the U.S.S.R. delegation had requested that consideration be given to a single-type perforation standard as agreed to by several nations at an international meeting in Budapest in 1936. The Harrogate meeting concluded with the recognition that the single-type perforation may ultimately replace the other types and a working group was formed to continue a study of the matter. The same group will also consider the incorporation of all types of 16mm film dimensions into one standard. The question of rounding off dimensions and the adoption of the metric system as the basic dimension was also discussed. The U.S. and the U.K. opposed the adoption of the resolution on the metric system. Dr. White concluded with a review of the ASA's position in connection with international standardization activity and stressed the importance of its participation to U.S. industry. He called for active participation and support of the ASA in their important work.

Screen Brightness

The committee reviewed the comments received on current standards proposals. Revised drafts will be submitted to the members incorporating many of the suggestions advanced at the meeting. Allen Stimson, chairman of a subcommittee on drive-in theaters, submitted a report on his committee's activity. The committee recommended that ideally there should be two prints of different density; one for indoor theaters and a lighter one for outdoor theaters. However, it was felt that it would be more desirable if a lighter print could be used for both indoor and outdoor theaters. A screen brightness proposal incorporating the recommendations of the subcommittee will be submitted to the

committee for consideration as an American Standard. It was reported that a special template, designed to fit in the projector aperture to facilitate screen brightness measurements, was currently being evaluated. It was suggested that anyone interested in assisting with this evaluation should notify the staff engineer at Society Headquarters.

Television

An SMPTE Recommended Practice on 2 by 2 Slide Mounts is currently under consideration by the committee. A new subcommittee under the chairmanship of N. R. Olding, CBC, was assigned the study of TV cue-mark placement and the development of a new TV film leader. John Ballinger of Screen Gems, who has conducted extensive surveys on this subject, will assist Mr. Olding in this work. Subcommittee activity related to a Proposed American Standard on TV Projectors for Vidicon Camera Operation will continue under the chairmanship of H. N. Kozanowski. This committee will also consider a Recommended Practice for the cleaning of optical multiplexers. R. M. Morris is chairman of a subcommittee considering specifications for a Recommended Practice on Density Requirements for Monochrome Films for TV. It is anticipated that color film density requirements will be considered after satisfactory agreement has been reached on the black-and-white proposal. The chairman, T. G. Veal, asked Messrs. Olding and Wintringham to study existing CBC and Bell Telephone TV glossaries and to make a recommendation as to whether it was desirable to compile a single listing.

Film Projection Practice

In its consideration of the revision of American Standard Z22.4, Motion Picture Projection Reels, the committee decided to add specifications for a 3000-ft reel which is used primarily by the TV broadcasters. It was reported that the new MPRC-SMPTE All-Purpose Projector Alignment Test Film (APAL) would be available in the near future. This film consists of a basic target which incorporates all standard aperture sizes including the 0.715-in. by 0.839-in. aperture. It may also be used for testing height steadiness, side weave, travel ghost, focus and breathing and buckling.* The staff engineer circulated a brief ISO report on items of interest to the members of the committee. Reference was made to the U.S.S.R. request that a single-film perforation and sprocket be adopted in order to facilitate international exchange of motion-picture release prints and television-film programs. The committee will await further action by the Interim ISO Working Group before placing it on its program of work.

Sound

Vice-Chairman E. W. D'Arcy reported that developments at the recent international meeting indicated that sufficient information was now available in order to standardize on the SMPTE Magnetic Multifrequency Test Film in terms of absolute magnetic level. Mr. D'Arcy will draft a

* Further information on this APAL Film may be obtained from Society Headquarters.

standards proposal for the committee's approval in the near future. M. G. Townsley, U.S.A. Delegate to the ISO/TC 36 meeting, submitted a written report concerning the working group deliberations and resulting draft proposals on magnetic reproduce characteristics (*Jour. SMPTE*, 67: 822-823, Dec. 1958). Considerable time was devoted to a discussion of the pre-emphasis ISO-SMPTE Characteristic and the CCIR unmodified characteristic which has been adopted by the European countries. It was generally agreed that it was extremely difficult to eliminate hum, particularly in 16mm portable equipment, without using the low-frequency pre-emphasis. However, further discussion disclosed that the prescribed amount of pre-emphasis could cause distortion in 35mm equipment. A test film incorporating the CCIR characteristic is being evaluated by the committee. The committee will withhold further action pending consideration of the final report.

The committee has been considering an extension of frequency of the Society's Magnetic Multifrequency Test Film. The final evaluation of a test reel circulated for comment indicated that the extension would be practical and advisable. Consequently, the committee voted in favor of extending the present M16MF Test Film to 10 kc. A Proposed American Standard for a Multi-Azimuth Test Film is presently under study. The specifications were prepared by a subcommittee chaired by J. L. Pettus. A test film produced in accordance with this standard would permit the determination of azimuth alignment without disturbing head adjustment. A subcommittee under the chairmanship of G. R. Crane will draft a standards proposal on Magnetic Track Width and Location of $\frac{1}{4}$ -in. Magnetic Tape With 16mm Perforations. M. A. Kerr reported on and demonstrated the effect of his new approach to magnetic half striping of optical tracks. The committee was asked to consider a Recommended Practice on the proposed dimensions for Optical-Magnetic 16mm Sound. Mr. Kerr also requested that consideration be given to a Recommended Practice on 110-mil maximum/100-mil minimum playback heads. The committee will take the request under advisement pending display of sufficient active interest to warrant the practice.

16mm & 8mm

The committee reviewed the status of current projects. F. J. Kelly discussed his proposed method of measuring camera steadiness by means of a visual oscilloscope presentation and requested the committee's advice on the method. After a brief discussion, it was decided that the existing methods of measurement, as proposed by Dr. A. C. Robertson and M. G. Townsley, should be circulated with Mr. Kelly's in order to arrive at a preferred method. The 16mm projector reel standard, PH22.11, is under committee review. Dr. A. C. Robertson will chair a subcommittee to draft a revised standard including specifications for a 600-ft and a 4000-ft reel. R. G. Herbst will chair a subcommittee to consider the revision of American Standard Z22.19, Location and Size of Picture Apertures of 8mm Motion-Picture Cameras.

High-Speed Photography

Chairman C. H. Elmer showed slides taken by Dr. H. E. Edgerton at the Fourth International Congress on High-Speed Photography which was held last year in Cologne, Germany. The SMPTE will sponsor the Fifth Congress which will be held in Washington, D. C., in 1960. The major

portion of the meeting was devoted to a discussion of the plans for the Congress. L. L. Endelman, chairman of the High-Speed Papers Committee for the 85th Miami Convention, reported that there would be a greater percentage than usual of popular-type papers given which will be of interest to the layman as well as to the expert. G. E.

Matthews noted that the committee was taking more of an interest in overall SMPTE activity, an attitude which he felt would benefit high-speed photography as well as the Society. The Chairman requested the committee's assistance in preparing the annual Progress Report. — J. Howard Schumacher, Staff Engineer.

news and reports

85th Convention—Miami

The theme of the 85th Convention, *Films and Television for International Communication*, will be dramatized by concurrent sessions on Television Facilities and Television Recording held in Miami and Havana and linked by two-way television. This particular plan is, of course, contingent upon the uneasy political situation becoming stabilized by Convention time, but it is only one of the important sessions and events which, even at this early date, are planned to make this occasion one of the most important and rewarding Conventions of recent times.

The Technical Sessions, the schedule for which has been tentatively set up, brings the interests of the Society into the main current of world affairs and indicates the wider areas to which its influence is extending.

SCHEDULE OF TECHNICAL SESSIONS (TENTATIVE)

Monday

Morning: High-Speed and Instrumentation Photography

Afternoon: Theaters and Projection (Concurrently) High-Speed and Instrumentation Photography

Evening: High-Speed and Instrumentation Photography

Tuesday

Morning: Laboratory Practice (Concurrently) High-Speed and Instrumentation Photography

Afternoon: Equipment Demonstrations and Papers

Evening: Cinematography

Wednesday

Morning: Audio-Visual Communications (Concurrently) Standards and Standardization

Afternoon: Committee Meetings

Thursday

Morning: Sound and Multilingual Films (Concurrently) Studio Lighting and Practices

Afternoon: Television Film Techniques

Friday

Morning: Television Facilities

Afternoon: Television Recording (possibly concurrent meetings in Havana and Miami on these topics with two-way television for a portion of the time)

It will be noted that the program is heavily weighted toward High-Speed Photography and Instrumentation, this being especially apt for the Convention locale. A tentative plan is to arrange a trip to Cape Canaveral for Saturday at the end of the Convention week, for a tour of the installations there.

Committee meetings will be held Wednesday afternoon. Thursday and Friday evenings are free, and on Thursday and Friday the afternoon sessions are scheduled to end at 3:30. This variation in the usual schedule is thoughtfully planned so that members and guests can take full advantage of sand and sun, as Florida members report that the late afternoon temperature is generally most conducive to healthful recreation at beach or swimming pool.

The Equipment Demonstration-Papers Session is expected to be a substantial one and will probably be given at least as much rapt attention by the audience as the more theoretical sessions. These will be descriptive demonstrations by Convention Exhibitors.

It is unusual and most gratifying that, at this stage of program planning, so much has been accomplished and so much form and unity are evident in the tentative schedule. The outlook for papers seems to be for a consistently high level of presentation with advance indications for a few of unusual significance.—Garland C. Misener, Program Chairman.

International Equipment Exhibit

Brochures and order forms inviting participation in the Exhibit went out a few days ago. Even before they were mailed, expressions of interest had been received from almost 50 companies, including several in England, France, Germany and Japan, indicating that this will be beyond any doubt the largest and most widely representative show that the Society has ever sponsored.

Probably because of the location and the prevalence of nearby missile bases, the number of manufacturers of photographic instrumentation equipment is particularly striking. Others already expressing their desire to participate include companies producing cameras, motion-picture film, projectors and screens, closed-circuit TV equipment, magnetic/optical sound devices, editing-room equipment, processing machines and laboratory instruments of all

kinds, and TV and motion-picture studio lighting.

Space presently contracted for at the Fontainebleau will accommodate 47 booths only. Since additional space will evidently need to be provided to meet the demand that is already accumulating, all those who plan to be represented at this show should lose no time in getting their order to the Exhibit Committee Chairman, John B. Olsson, so that he will be able to estimate total requirements early enough to arrange with the hotel for the extra space that will be required. John's address is c/o Beattie-Coleman, Inc., 1000 N. Olive St., Anaheim, Calif.

Education, Industry News

The National Defense Education Act of 1958 (Public Law 85-864) makes specific provision for the purchase of audio-visual materials to be used in educational programs in public schools throughout the nation. Title VII of the Act recognizes the new trend in education by providing for research leading to more effective utilization of television, radio, motion pictures and other audio-visual aids for educational purposes.

An analysis of the provisions of the new law which affect the audio-visual field is contained in an informative booklet, *AV-864*, prepared by the National Audio-Visual Assn., Fairfax, Va. Tables are included showing allocations to each State under the \$40 million initial appropriation. Also included are lists of audio-visual materials and equipment which might be purchased for educational purposes under the provisions of the Act. Interpretations of the new legislation (also known as the Hill-Elliott Law) have been checked with officials of the U.S. Office of Education, including those who will administer it. The 13-page booklet is available from the Association without charge.

A survey of radio and television courses in 25 universities shows wide variations in the pattern of instruction, suggesting that "the men responsible for instruction in radio and television have come to no final collective decision as to either the purposes and objectives of instruction on the one hand, or the types of courses which should be offered to provide a well-rounded pro-