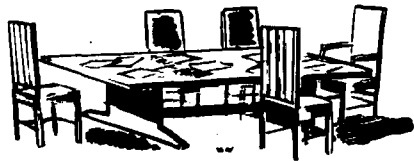


engineering activities



Interesting and challenging problems were the order of the day for the engineering committees which met during the Society's 77th Convention in Chicago during the week of April 18, 1955. Drafts of standards covering various aspects of the new look in motion pictures, instructions to the U.S. delegation to the June 1955 Stockholm meeting of ISO/TC 36, review of standards over five years old to bring them up to date, test films for color television and for magnetic sound, these among others were the vital issues with which the committees were concerned and which attracted a record attendance to these meetings. The resulting discussions were, for the most part, lively and fruitful. The essence of these discussions is presented below.

Color Committee

The activities of the four existing subcommittees were reviewed and a new subcommittee was formed to study the questions relating to the standardization of the measurement of the density of color sound-tracks.

Film Dimensions

American Standards Z22.71-1950 and Z22.72-1950 were reviewed and action was begun to revise these two standards. Processing of a draft standard for the dimensions of film for CinemaScope prints was continued and plans were made to draft standards for 16mm short-pitch film.

Film-Projection Practice

Revision of Z22.4-1941, the 35mm projection reel standard, was approved for letter ballot to the full committee. Three proposed aperture standards for: (1) CinemaScope With 4-Track Magnetic Sound, (2) CinemaScope With Photographic Sound and (3) Superscope With Photographic Sound were reviewed and improvements made in the accompanying appendix. Aperture (1) above was supported by the committee for international standardization. A detailed report on film cooling in projectors was presented by William Hecht, Chairman of the subcommittee on this subject, and plans were made to continue the study of this important question.

Laboratory Practice

The question of a uniform nomenclature is of commercial significance to the film-processing laboratories and extensive plans were made at this meeting to revise and bring up to date the existing standard, Z22.56-1947. Continued efforts were reported to establish a uniform method of cuing the printer light-change device which would eliminate the antiquated and destructive notching technique.

Screen Brightness

Proposed American Standard, PH22.100, Screen Brightness of 16mm Laboratory Review Rooms, was published for trial and comment in the January 1955 *Journal*. No adverse comments were reported and the committee supported further processing of this standard.

Dr. Armin Hill, chairman of the Subcommittee on Projection Screens, submitted an encouraging report indicating that progress was being made toward the Subcommittee's objectives of establishing the terminology, photometry and standardization of projection screens.

The screen brightness of drive-in theaters has been under active survey and a report on the data of 26 drive-in theaters was presented by Dr. Fred Kolb to the group. After making certain modifications, the committee approved the report for presentation to the Convention as a committee document. This will be published in an early issue of the *Journal*.

The international standardization of screen brightness is important for the international exchange of motion pictures and especially so with the advent of wide-screen processes. Much time was spent establishing the position the U.S. is to take on this at the forthcoming international meeting of ISO/TC 36.

16 & 8mm Committee

This meeting was almost completely concerned with standards in one form or another. Three standards sent to the committee with a letter ballot prior to the meeting were considered first. Of these three, one, Ph22.41, Photographic Sound Record on 16mm Prints, was approved for submittal to the Standards Committee. The second, SMPTE 824, Film Spools for 8mm Motion-Picture Cameras, was also approved but the closing of the letter ballot was left to the discretion of the chairman upon reaching the closing date. Several comments had been received on the third proposal, SMPTE 823, 8mm Motion-Picture Projection Reels. Agreement was reached to modify this first draft and a second draft is to be circulated to the committee shortly.

The requirement that American Standards be reviewed every five years led to an examination of four 1950 standards: Z22.19, Location and Size of Picture Aperture of 8mm Motion-Picture Cameras; Z22.20, Location and Size of Picture Aperture of 8mm Motion-Picture Projectors; Z22.80 and Z22.81, Scanning-Beam Uniformity Test Film for 16mm Motion-Picture Sound Reproducers (Laboratory and Service Types). There was agreement that all four standards should be revised. The substance of the revisions required in the first two was established and drafts of these proposals will be submitted to the committee with a letter ballot. The last two standards did not lend themselves to such rapid decisions regarding the nature of the revisions and a subcommittee was therefore formed to make the required study and to prepare the draft revisions.

The similarity of technical considerations between Z22.19 and Proposed American Standard, PH22.7, Aperture for 16mm Motion-Picture Cameras, led to the

conclusion that certain aspects of the latter should also be revised. Accordingly, a new draft of this proposal will be prepared and submitted for committee consideration.

In addition, a brief period was devoted to certain test film considerations and to special size reels of 600-ft and 4000-ft film capacity.

Sound

Most of the work of this committee is presently going forward very nicely through correspondence. The meeting itself was therefore a brief one with the emphasis placed on bringing everyone up to date on the status of the three outstanding letter ballots and assigning responsibilities to one or two members for resolving the few questions that have been raised. The three proposals in question are: (1) PH22.40, Photographic Sound Record on 35mm Prints, (2) PH22.51, Intermodulation Tests, 16mm Variable-Density Photographic Sound, and (3) SMPTE 819, 4-Track Magnetic Sound for 35mm Film. The latter proposal was endorsed for international consideration.

Magnetic Recording Subcommittee

The dimensional aspects of magnetic striping and of magnetic sound-tracks were previously the most important areas of committee activity. At this meeting, the emphasis was shifted to magnetic test films. 16mm multifrequency, azimuth, flutter and signal level films and the specific questions relating to their production and standardization dominated the discussion. Of greatest significance is the agreement reached on the recording characteristics of the multifrequency test film and the reproduce characteristics of the projectors. This will permit the Society to proceed with production of the multifrequency test film and establishes the necessary foundation for the exchange of film with magnetic sound recorded on one projector and played back on another. It is intended to process the specifications for the reproduce characteristics as an SMPTE Recommended Practice. Plans were made for the further development of the other test films.

With respect to international standardization, it was agreed that the reproduce characteristic just approved should be used by the U.S. delegation as an indication of the present direction of U.S. industry on this question.

SMPTE Standards Committee and ASA Sectional Committee PH22

A joint meeting of these two committees was held to consider the agenda of the June 1955 meeting in Stockholm of the International Standards Organization Technical Committee 36 on Cinematography (ISO/TC 36). The U.S. delegation consists of nine people and the meeting was devoted to establishing the position this delegation should take on the various agenda items. In addition, a determination was made as to which documents should be circulated abroad as expressive of the U.S. position.

A report on the conclusions of this second meeting of ISO/TC 36 will be published in an early issue of the *Journal* just as soon as this material is available.

Television

Although the committee discussed 4000-ft reels, kinescope recordings and masking and gamma amplifiers, of major interest to those present was the question of a test film and test slides for color television. The contents of the ten 2×2 slides, 16mm and 35mm films which the Society expects to make available in the near future were described and the 35mm portion of the test reel to be supplied by Eastman, Ansco and Technicolor was demonstrated. The quality of this portion of the test reel was received with considerable enthusiasm. Announcement of the availability of this test material is expected shortly.

Television Studio Lighting

The committee reviewed the purpose and scope of the three projects under active consideration and the organizational structure of the two regional subcommittees whose activities will also revolve about these three projects which are: (1) equipment and performance ratings, (2) instrumentation and measurement and (3) nomenclature. These projects are described in greater detail in a committee report published elsewhere in this *Journal*.

Plans were made to have a Television Studio Lighting Symposium during the 79th Convention, April 29 - May 4, 1956, in New York City which will include papers on the lighting requirements for both color and monochrome television broadcasting. *Henry Kogel*, Staff Engineer.

Posthumous Honor for Frank C. Gilbert

The memory of Frank C. Gilbert, chief engineer of Altec Service Corp., has been honored by the U.S. Navy Underwater Sound Laboratories, New London, Conn., through the dedication of Franklin C. Gilbert Road, principal thoroughfare on Fort Trumbull Reservation.

The ceremonies, conducted by Capt. Edward J. Fahy, U.S. Navy Commanding Officer and Director, included the unveiling of a plaque by Gilbert's widow. The commemoration took the form of a tribute to the supreme sacrifice made by the Altec chief engineer in action during the submarine campaign waged by Germany off the New Jersey coast during World War II.

On leave of absence from his company at the time, Gilbert, in company with E. S. Sealey, present Altec chief engineer, T. H. Carpenter, and other Altec technicians, was engaged in anti-submarine warfare research and development in behalf of apparatus for the detection and destruction of submarine raiders. His death came in a blimp while testing experimental detection gear off the Jersey coast.

Education, Industry News

The National Association of Photographic Manufacturers, Inc., has announced that it is cooperating with the State University of New York in establishing a new two-

year course for high school graduates in Photographic Equipment Technology.

Designed to equip the student to earn a good living in the photographic technical field and to live as an effective citizen in his community, the course has been established at the Long Island Agricultural and Technical Institute at Farmingdale, N.Y., and will begin at the opening of the regular fall term. First year subjects to be taken in three quarters will include General Education, Mathematics, Physics, Mechanical Drafting, Electricity, Construction and Maintenance, Photographic Techniques, Electronics, Machine Tool Laboratory, Photographic Mechanics, Accounting and Physical Education. All these courses will be slanted to show the application and use of the information provided in the photographic service field.

The second year of study offers courses in the Modern Community, Business Organization and Management, Photographic Techniques, Electronics, Instruments, Applied Psychology, Photographic Materials, Electronics Shop, Inventory Control Techniques, and Physical Education.

Applicants for the courses must be 16 years or older and must be graduates of approved four-year high schools (or hold equivalent diplomas). The two-year program will lead to the college degree of Associate in Applied Science. Tuition will be free to residents of the State of New York. Full information may be obtained from: Office of Admissions, Long Island Agricultural and Technical Institute, Farmingdale, Long Island, N.Y.

Rochester Institute of Technology has announced a seven-week midsummer course in "Fundamentals of Color Processing and Photography," under the direction of C. B. Neblette, head of the Department of Photography. The first half of the course, which begins July 11, will have particular application for motion-picture lab people, since it will deal with the basic fundamentals of color photography and processing involving chemical controls for processing film. Lectures will be delivered by faculty members of RIT and outstanding technicians and executives from the Eastman Kodak Co. and Ansco. Technical demonstrations are also scheduled during the course.

Bell & Howell Co. recently announced five new executive appointments in the optical and professional equipment divisions. George L. Oakley, formerly manager of professional and industrial sales, has been appointed manager of the company's professional equipment division. Mechanical engineering of professional equipment will be headed by Arthur C. Mueller, who was formerly head of the camera design department. Warren Delhorbe will be responsible for the electronics design of professional equipment. Everett F. Wagner has been named manager of the optical division, and Arthur Cox has been appointed optical director to head up the optical design and tooling departments and do liaison work in optical market development and quality control.

In addition, Bell & Howell has sent Arthur H. Bolt to be its new vice-president of western operations at the company's Hollywood offices.



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