Expanding Inter-Society Coordination with the SMPTE

By R. J. ZAVADA

In the history of standardization, the Society of Motion Picture Engineers began its functioning in 1916 as a single-discipline, technical, scientific, and engineering organization directed to the technology of motion-picture film. The advent of sound with motion pictures caused the technology to cross a plurality of disciplines — photographic, electrical, and acoustical, in addition to the previously embraced optical. So it was in 1934 that the SMPE joined with the Research Council of the Academy of Motion Picture Arts and Sciences, the Acoustical Society of America, the Optical Society of America, the American Society of Cinematographers, and the Motion Picture Distributors of America in pursuing an expanded role in engineering for motion pictures.

The next significant need for inter-society activity resulted from the effort of the National Television Standards Committee (NTSC), and the issuance of an FCC ruling in July of 1941 permitting television broadcast. The Society had been receiving papers on television at its conferences since 1938, and following the adoption of the rule, it formed a television committee whose efforts were directed primarily to the use of motion pictures on television or telecine, and shortly thereafter added "Television" to its name.

Following World War II it became evident that there were several organizations directing attention to standardization in the field of television. In order to properly allocate standardization needs or problems for study to the appropriate organization and to avoid redundancy of effort, a committee was organized with members from several concerned groups. Initially constituted with three members, the committee was first called the IRS Committee (no connection with the income-tax people) from the first initials of the members: the Institute of Radio Engineers (which shortly merged with the American Institute of Electrical Engineers to become the IEEE), the Radio Electronics and Television Manufacturers Association or RETMA (which shortly became the Electronics Industries Association or EIA), and the Society of Motion Picture Engineers (which as we know became the SMPTE). This organization has been functioning effectively since its inception and has now been expanded to include the National Association of Broadcasters and the National Cable Television Association. No longer called the IRS Committee, it now goes by the name Joint Committee on Inter-Society Coordination (JCIC).

The Joint Committee has no chairman, and it meets at the call of any of the organizations. The respective engineering vice-presidents are the principal members or conveners. It was through this organization that the SMPTE received acknowledgement of its direction and effort to study and draft documents for the standardization of (for example) video recording technology, camera monitor and telecine colorimetric characteristics, and digital television technology.

The Society maintains liaison membership with eight of the National Standards Committees under various management boards of the American National Standards Institute. In addition, we have a nonvoting member on the Institute of Electrical and Electronic Engineering Standards Committee, three members on the International Commission on Illumination, two voting members on the U.S. Advisory Committee for the International Radio Consultative Committee (CCIR), ten members on the Inter-Society Color Council, and one voting on the National Audiovisual Association Performance Characteristic and Test Method Committee. The purpose of these liaison members is primarily to assure effective communications, but also to determine in which way the Society can effectively serve industry needs and the public interest. Some of the problems that occur impact directly, while others are more tangential in nature. Of course, we should not forget the multitude of de facto liaison channels that exist because many members of the Society are also members of other organizations and participate jointly in a plurality of efforts of related or affected disciplines.

This report was presented on 1 November 1978 at the Society's Technical Conference in New York City by Roland J. Zavada, SMPTE Engineering Vice-President, affiliated with the Photographic Technology Division, Eastman Kodak Co., 343 State St., Rochester, NY 14650. This report was received on 16 November 1978.

New Inter-Society Activities

During this past year we had an opportunity to develop two new Inter-Society activities, involving lighting and theatrical presentation. We became aware that the Professional Motion Picture Equipment Association was having a problem with the interchangeability of lighting fixtures in studio operations. More specifically, there are at the present time fittings of several different diameters used to mount small lighting fixtures to lighting stands and other devices. The sizes vary without apparent reason or logic, and the problem represents the culmination of 50 years of confusion. Because lighting fixtures are used for still and motion-picture photography, television, and stage lighting, a problem arose regarding how standardization might be accomplished.

In 1967, the Society transferred the responsibilities for television studio lighting to the Illumination Engineering Society to fulfill their objective of total standardization of light and lighting characteristics. There was no attempt on the part of the IES to standardize hardware, however, and so within the provision of our scope of responsibility, a special ad hoc committee was formed by the Standards Committee to provide the Professional Motion Picture Equipment Association an opportunity to begin its embryonic standardization effort. The group has formed a Working Group under the chairmanship of Ed Phillips of Matthews Studio Equipment, Inc., which met during the 120th Conference and is on its way toward developing meaningful standards for lighting fixtures.

The most recent and a very significant joint Society effort began this year in the area of theatrical or entertainment motion pictures to deal with such concerns as theatrical sound, film print life, automation, and many others. Many of you are aware that the motion-picture industry was essentially vertically integrated prior to World War II. That is, the major studios had their own distribution companies and owned a chain of theaters for the presentation of feature films. Concern by independent theaters for availability of product, and by the general public about the theater owners' ability to select product, precipitated a Congressional investigation beginning in 1932 and ending in 1947 with a consent decree that resulted in most theaters being divested from the producer distributor organization.

Because of their early organizational structure, theaters were backed by the large engineering and the research facilities of the major studios. Of course, the needs were reciprocal, in that the producers were interested in maximizing the effective potential presentation of their product. Left to their own, the theater owners organized into two groups — The National Allied Theater Owners and Theatre Owners of America. Twelve years ago they merged to become NATO — the National Association of Theater Owners. Their trade association functions to fulfill roles in business and technology.

SMPTE Past-President Wilton Holm and John Burlinson of the Theatrical Equipment Association foresaw the need for improving liaison between theater owners and the Society. The action to meet this need was taken by SMPTE Past-President Ken Mason, who met in January 1978 with Marvin Goldman and Joe Alterman (respectively President and Executive Director of NATO), Jerry Sunshine and John Burlinson of the Theatrical Equipment Association, and Jack Baer, Paul Preo, and me from the SMPTE. Later, Jack Valenti, President of the Motion Picture Association of America, pledged his cooperation. In June, the membership from each organization was expanded to three and we set about addressing our first task.

An avowed goal of the resulting Inter-Society committee is to provide a platform to address the technical characteristics of any aspect of theater presentation and thus enhance and enrich the quality of the visual, aural, and environmental impression for the general audience.

Often, problems of mutual need are more effectively communi-

cated through joint effort. The committee foresees many problems requiring their attention, including advancements in theater sound, motion-picture print life (including wear and tear), technical requirements of automation, theater acoustics and equalization, screen illumination characteristics, geometry, seating, and so forth.

In the middle of October in 1978, there was a national meeting of NATO, and the Joint Committee decided to provide its first position paper by addressing the question of stereo-optical sound for motion-picture release prints. Stereo sound, of course, had been tried in many ways, and you will probably remember the first significant commercial venture with Walt Disney's *Fantasia*.

In 1954, Frayne proposed dual-bilateral stereo tracks, but the technique was not commercially accepted because of low signal-to-noise ratio. This concept was revised by Ron Uhlig in 1974 to encompass the process of Dolby noise reduction, and a new method of distributing stereo prints, potentially compatible, to theaters was at hand. Approximately 20 theatrical releases have been produced with stereo-optical sound, and an equal number are in preparation.

The theater owner is confronted with the demands of evaluating his theater's potential for stereo-optical sound and making decisions pertaining to new hardware and installation. To fulfill the theater owners' need for knowledge, I had the privilege of chairing the first ad hoc committee and presenting our joint report to the national meeting of NATO in mid-October. The reports we have had to date indicate that it was extremely well-received. We are looking forward to further cooperation within the joint technical committees of NATO, MPAA, TEA, and SMPTE.

The Society is, of course, always willing to lend its knowledge and expertise to the good of the industry in any suitable way. Our eight engineering committees are always ready to directly address the problems within our discipline. When problems of greater magnitude require organizational cooperation, the Society will be receptive to these needs in the future as it has been in the past. In summary, it should be remembered that the Society's engineering effort welcomes the participation of all interested parties whether they are members of the Society or not.

Standards & Recommended Practices

Proposed SMPTE Engineering Committee Recommendations

Two Proposed SMPTE Engineering Committee Recommendations are published here for a trial period: ECR 3, Projection for Technical Conferences; and ECR 4, Audio Reinforcement for Technical Conferences.

Comments on the proposals should be addressed to Alex E. Alden at Society Headquarters prior to 1 August 1979. If no adverse criticism is received, they will be submitted to the Society's Board of Governors for approval.

Approved International Standard

The International Organization for Standardization (ISO) recently approved an International Standard, the technical content of which is published here for your information. ISO 3773-1978, Cinematography — Tape Splices for 8-mm Type S Motion-Picture Film for Projector Use — Dimensions, is in agreement with American National Standard PH22.172.2-1976.

Approved Withdrawal of American National Standards

A recommendation for withdrawal of approval of two American National Standards was approved by the American National Standards Institute on 4 January 1979. PH22.141-1974, Dimensions for 32-mm Motion-Picture Film, 2R; and PH22.142-1974, Dimensions for 32-mm Motion-Picture Film, 4R, were withdrawn because the motion-picture films specified are not being manufactured. — *Alex E. Alden, Manager of Engineering Services*