

Thursday — October 25

Industrial Audio-Visuals/Films in Education and Television— *All Day*

Concurrent — *Morning*: Questions From the Audience With Answers by the Panel From the Sixth International Congress on High-Speed Photography. Written Questions Invited.

Friday — October 26

Cinematography — *Morning*

Television Equipment and Closed-Circuit Applications — *Afternoon*

The above schedule of sessions has been cleared by Program Chairman *Jack Behrend*. It also has been sent to all members in the Convention postal announcement which contained a hotel reservation card, following the

announcement in the July *Journal*. Anyone who has overlooked this should write, mentioning the 92d SMPTE Convention, direct to Bert A. Unckell, Reservation Manager, The Drake, Lake Shore Drive & Upper Michigan Ave., Chicago 11.

The announcement also conveyed the complete program of the Saturday, October 20, and Monday, October 22, activities of the Association of Cinema Laboratories.

An Exhibit of motion-picture and television equipment expected to fill two of The Drake's convention halls is being organized by *Allen Hilliard* of the Geo. W. Colburn Laboratory, Inc., 164 N. Wacker Dr., Chicago 6.

The catalog of the Equipment Exhibit and the Advance Program of all paper titles, authors and abstracts will appear in the September (the Convention Issue) of the *Journal*.

engineering activities



DURING THE FIRST WEEK OF May the Society held its 91st Semiannual Convention at the Ambassador Hotel in Los Angeles. The effectiveness and the overall success of the Convention were especially evident in the amount of work accomplished at the meetings of the SMPTE Engineering Committees. Of the ten Engineering Committees, the three not meeting at Los Angeles were the Standards Committee, the Television Studio Lighting Committee and the Video-Tape Recording Committee. The Television Studio Lighting Committee was recently reorganized, and its chairman, Rollo G. Williams, anticipates holding a meeting in the early fall. The Video-Tape Recording Committee held several meetings in the East prior to the convention.

Balloting Period

During the past several years there has been a growing amount of concern over the apparent lengthy time that is needed to process American Standards in the motion-picture field. Possible ways of speeding action were discussed and Deane R. White, SMPTE Engineering Vice-President, selected and initiated several actions he hopes will shorten this program. The usual one-month committee ballot period was cut to two weeks, and the three-month trial publication period was shortened to six weeks. It was pointed out that normally all comments resulting from publication of proposals are received by the staff engineer quite promptly and extra insurance resulting from the three-month term may not be necessary.

Color

The Color Committee, under the chairmanship of L. M. Dearing, met to examine the long-awaited revised draft of the "Principles of Color Sensitometry." Dr. Gerhardt, working with Messrs. Weiss, Bates, Herrnfeld, Nitka, Wintringham, Derr and Schadlich, has now completed the eight sections and the report will be circulated to the entire Color Committee for review. The 1950 edition of the report has been very much in demand and regrettably has been out of print and is no longer available; consequently, the reprinting of this report has been anticipated with some enthusiasm.

A report on characteristics of color film soundtracks has been completed by Mr. Herrnfeld and will be published in the *SMPTE Journal* for general information.

A new project concerning a standard method of determining the speed of reversal color motion-picture film was initiated with Mr. John Waner as chairman of a subcommittee to study the problem.

Working with the Television Committee, the Color Committee will attempt to establish a recommendation on density and contrast range of color films for television.

Film Dimensions

Several years ago the Film Dimensions Committee embarked on a modernization program of re-editing the film dimensions standards to facilitate their use both nationally and internationally. At the recent meeting a group of eight standards was completed and will shortly be published in the *Journal* for the usual trial period. This group consisted of dimensions for 35mm film, both short pitch and regular, and having the standard DH (Dubray-Howell), KS (Eastman) and BH (Bell & Howell) perforations. The group also contained several 16mm, single- and double-perforation films and a standard for 35mm film perforated 32mm.

The committee is continuing work on other standards which include 35mm film with BH (Bell & Howell) and CS (CinemaScope) perforations, and several

dealing with 32mm film, regular and short pitch, single and double perforation.

Prompted by the concern exhibited over the number of film dimensions standards in the motion-picture field, the chairman, Dr. W. C. Brandsma, has started to study methods of combining information in closely related standards. At present, it appears desirable to keep the different types of motion-picture films separated.

Film Projection Practice

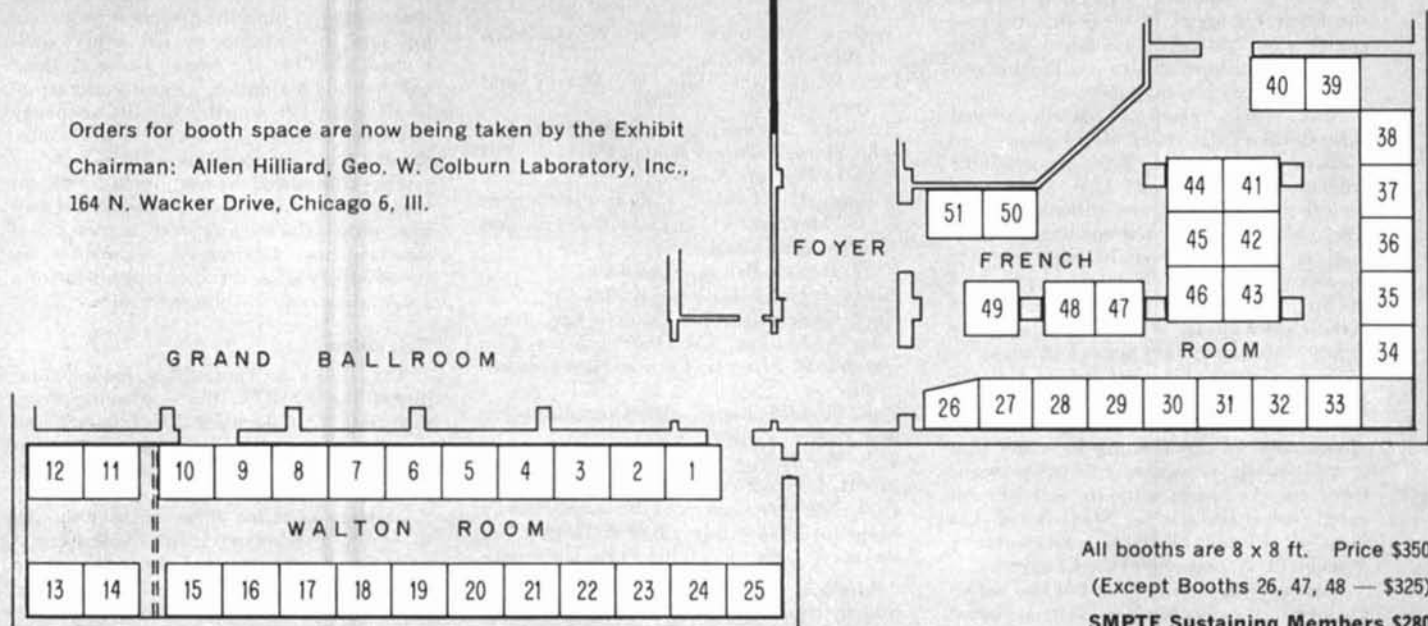
At the start of this year, an attempt to streamline our standards program resulted in the combining of two "theater" committees. The Screen Brightness Committee combined with the Film Projection Practice Committee under the chairmanship of C. E. Heppberger, and held the first meeting in Los Angeles as the combined committee. The lengthy agenda covered a number of subjects that are being reviewed under the ASA five-year review rule. These dealt with 35mm projection reels and various types of 35mm and 70mm projection apertures. Several of these are in the proposal stage and will be circulated to the entire committee for approval.

Mr. Reichard reported that the joint efforts of the Television and Laboratory Committees have now reached the final phase in establishing a universal leader to be used with release prints intended for television broadcasting as well as theater release. The task of finding a common denominator to satisfy both the television requirements and the established theater practices did prove to be a difficult matter; however, it now appears to be reaching its fulfillment. The following committee projects have now been completed: A revision of PH22.35, American Standard Dimensions for 16-Tooth 35mm Motion-Picture Projector Sprockets, was approved by the ASA in April, 1962. An SMPTE Recommended Practice on drive-in theater luminance, approved by the SMPTE Board of Governors in June of 1962. The third project is a new proposed standard for screen luminance and viewing conditions for 35mm review rooms. This proposal was published for trial in the

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CHICAGO Convention Exhibit

Orders for booth space are now being taken by the Exhibit
Chairman: Allen Hilliard, Geo. W. Colburn Laboratory, Inc.,
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*Cinematography ♦ Projection ♦ Sound ♦ Laboratory
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Audio-Visuals ♦ Closed-Circuit and TV Broadcast
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92nd SMPTE Convention and Equipment Exhibit

Exhibit open October 22-25
DRAKE HOTEL, CHICAGO

November, 1961, *SMPTE Journal* and will now be sent to the PH22 Committee for approval.

Instrumentation and High-Speed Photography

Although the Instrumentation and High-Speed Photography Committee, under the leadership of Morton Sultanoff, has the least number of actual engineering projects, it is second to none in enthusiasm and overwhelming drive in the constant search for new frontiers. The SMPTE recently published an excellent volume on the *Proceedings* of the 5th International Congress on High-Speed Photography. This volume, of some 103 technical papers, is perhaps the finest collection of ideas in advanced engineering thought available in this field. The publication also has French and German abstracts of all papers.

Max Beard, reviewing his educational survey, urged the members to pass on to him all the possible data on available educational facilities in U.S. schools in regard to high-speed and instrumentation work. Mr. Beard pointed out the apparent void in formal university curricula for the photographic scientist and emphasized the importance of providing these courses if the United States is to remain the leader in high-speed and instrumentation work.

Preparations are continuing for the Sixth Congress to be held in September in The Hague, Holland. The enthusiastic anticipation of the meeting indicates that it will be fully as successful as the previous Congress. American interests will be well cared for inasmuch as Max Beard has been appointed SMPTE representative and chief U.S. delegate to the Congress.

The committee at present has two active engineering projects. The first is being studied by a subcommittee under Mr. A. Earl Quinn, who is preparing a draft recommended practice outlining a method for determining camera steadiness; the second is a revision of the SMPTE Recommended Practice RP 3, dealing with lens mounts for high-speed cameras.

Laboratory Practice

Three projects were completed by the Laboratory Practice Committee: Three chapters to be added to PH22.56, Nomenclature for Motion-Picture Films, have been sent on to Standards Committee, along with the revision of PH22.38, Dimensions for Raw Stock Cores for 16mm Motion-Picture Film. These will be published in the *Journal* upon approval of the Standards Committee. A similar proposed standard for 35mm cores was published in the July, 1961, *Journal* and is presently being reviewed by the PH22 Committee. The committee, chaired by W. D. Hedden, is now actively reviewing the standards dealing with 16mm printing aperture dimensions and methods of standardizing the sensitometric procedures currently in use by laboratories.

16 & 8mm

Discussion of possible usage of 8mm film in fields requiring prints was widespread at the convention and came to a head at the meeting of the 16 & 8mm Committee. The immediate background was formed by two papers, "A Proposed 8mm Sound Film System" by John Maurer, and "8mm

Sound Color Print Quality" by C. J. Staud and W. T. Hanson. Both of these suggested that changes from the present 8mm film standards, firmly established in the home movie field, might aid in the penetration of new business areas, e.g., educational and advertising films.

Since the Los Angeles Convention the following Committee has been formed:

*Ad Hoc Committee on
Utility of Small-Format Motion-Picture Films*
Louis Forsdale, *Chairman*, Columbia University
Fred E. Aufhauser, Vicom, Inc.
H. E. Bragg, 20th Century-Fox Film Corp.
W. C. Brandsma, E. I. du Pont de Nemours & Co.
Geo. W. Colburn, Geo. W. Colburn Laboratory, Inc.
Ellis W. D'Arcy, Ellis W. D'Arcy and Assoc.
Herbert E. Farmer, Univ. Southern Calif.
John Flory, Eastman Kodak Co.
John L. Forrest, Ansco
William D. Hedden, Calvin Productions
R. G. Hennessey, Fairchild Camera and Instrument Corp.
R. G. Herbst, Bell & Howell Co.
Henry J. Hood, Eastman Kodak Co.
Gary Kaess, Keystone Camera Co., Inc.
John A. Maurer, JM Developments, Inc.
Garland C. Misener, Capital Film Laboratories
Wm. H. Offenhauser, Jr., Consultant
Ben Peirez, V'ewlex, Inc.
J. L. Pettus, Radio Corp. of America
Albert J. Rosenberg, McGraw-Hill Co.
F. J. Scobey, General Film Laboratories
Malcolm G. Townsley, Bell & Howell Co.
Robert W. Wagner, Ohio State University

Much of the discussion centered on the role the Society should play as an aid to the prompt resolution of today's divergent views. It was quite generally agreed that delay is undesirable. One group urged the Society to establish a new body of standards which would logically define what ought to be possible of accomplishment for good technical results to the user, leaving the solution of design and cost problems to the ingenuity of the industry. Successful precedent for this type of approach was said to exist in the work of wartime 252 on the JAN 16mm projector project. It was pointed out that the Society is continuing to offer an opportunity for presentation of papers and discussion of divergent views; and also, that premature action on the part of the Society as an official group might tend to retard technical progress.

Specifically, the committee recommended that the Engineering Vice-President form an ad hoc committee to consider all proposals for revision of the present 8mm format and make such recommendations as they choose to the continuing engineering committees of the Society.

The committee, chaired by R. G. Herbst, has been quite busy with a great amount of work. Prior to the meeting, nine completed projects were forwarded to the Standards Committee. With one exception, all are revisions of established standards: A new proposed standard (identical to PH22.107) on 50- and 100-ft film spools for 8mm motion-picture cameras, image sizes, 8mm and 16mm motion-picture usage, projection lamps and 16mm

projection reels. All of the proposals will be published in the *Journal* upon approval.

Splices, edge-numbering of 16mm film, four-pin base lamps, 8mm and 16mm projection areas, focusing scales and a new 16mm projection test film are among the twelve subjects on which the committee is completing work.

Sound

The Sound Committee, possibly the one with the greatest number of projects, has succeeded in completing 25 projects during the last year. The most notable among the achievements is the completion of eight standards on 8mm magnetic sound recording. Four of these are standards describing test films the Society is preparing for sale in addition to the other well-known SMPTE test films. Three of these will be used for flutter, azimuth and signal level tests. The fourth, a multifrequency test film, will not be available until after the first three are established.

The committee is continuing work on ten additional proposed revisions and two new proposals, dealing with a method of standardizing laboratory techniques in the sound field, and the establishment of a 35mm theater sound characteristic.

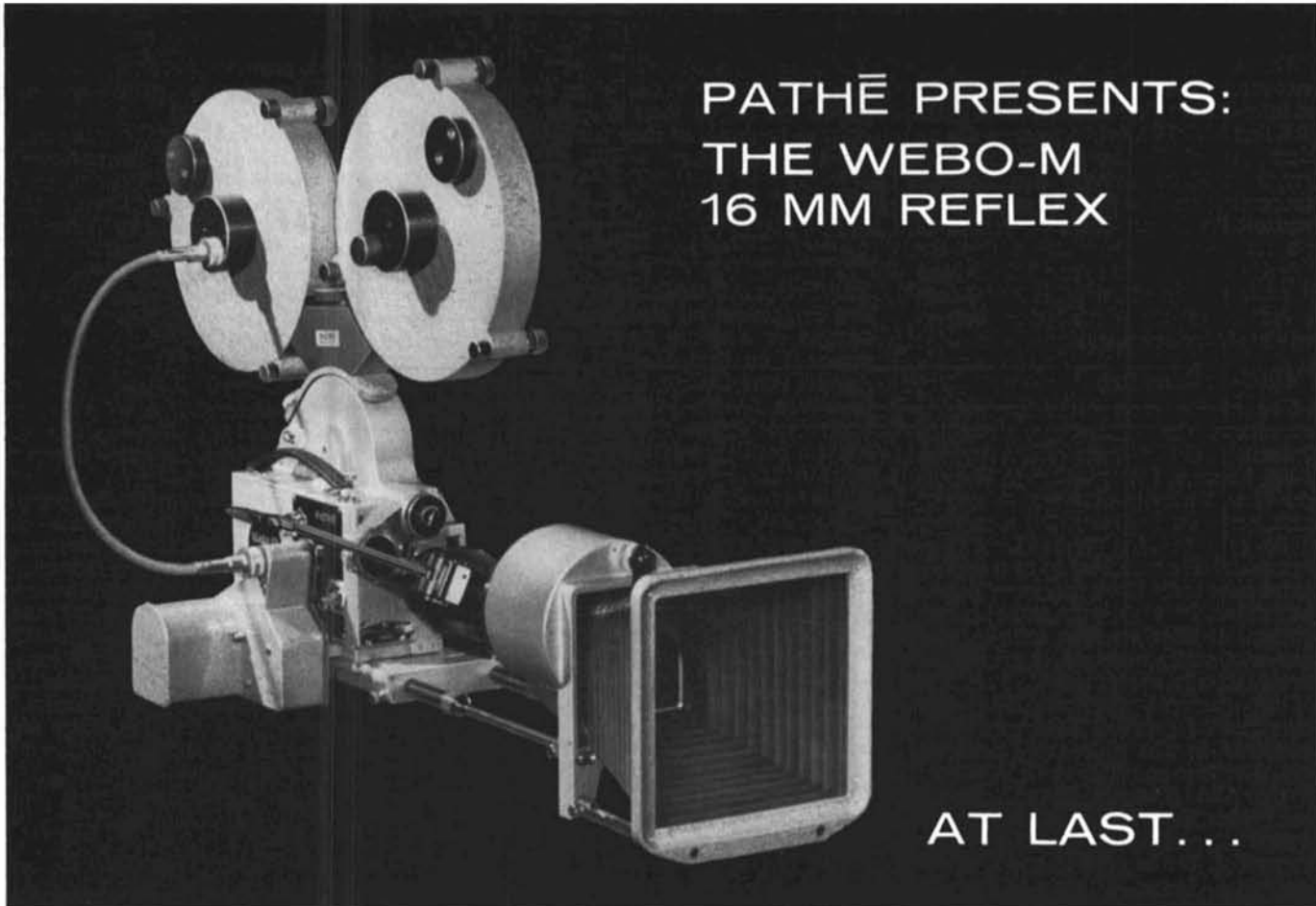
Television

The Television Committee, having completed the SMPTE Recommended Practice, Safe Title Area for TV Transmission, is now preparing a similar recommendation for a safe action area. Over the past years, MPRC Recommendations #27 and #36 have been used for these areas, although there now appears to be some dissatisfaction and the committee has been urged to reduce the safe action area size. Three other projects have recently been completed by the committee — SMPTE Recommended Practice, Density and Contrast Range of Black-and-White Films and Slides for Television was approved by the SMPTE Board of Governors and is now available through the SMPTE headquarters office; published in the May 1962 *Journal* were proposed revisions of two standards for the television picture area for 16mm and 35mm films. The committee is currently working on three new proposals: a precision slide mount for 2 by 2 slides; an intermittent projector for vidicon camera operation; and a specification for density, contrast range, and chromaticity of color films and slides for television.

The committee is also devoting a great deal of time to both the preparation of new television test films and slides and the updating and revising of several existing items. Mr. N. R. Olding has now completed a draft of the revision of the SMPTE All-Purpose Test Film, as well as a draft of the standard for a universal leader to be used for both television and motion-picture theater use.

Dr. John Ladd accepted the responsibility of completing the work, started by W. B. Whalley, of preparing all the EIA (RETMA) television charts, the specifications for which will be released as American Standards and, eventually, as 2 by 2 slides for television testing. The committee has now more or less completed the proposed "master standard," which will give the dimensions and specifications for these test slides.

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The chairman, W. T. Wintringham, announced that the Joint Committee on Inter-Society Coordination, (EIA, NAB, IRE and SMPTE), held a meeting during March to clarify the jurisdiction over several problems recently suggested for standardization. The SMPTE assumed the responsibility for two of the problems, and will set up a subcommittee within the Television Committee to study the subject of control room illumination and standardization of the reproducing characteristics of telecine equipment.

Video-Tape Recording

One of the most active engineering committees, the Video-Tape Recording Committee, did not meet at Los Angeles. It did, however, hold meetings in Chicago and New York during April, May and June, and now has scheduled a meeting to be held in New York City during September. The membership of this committee must indeed be commended on the extraordinarily high attendance record achieved at these meetings because they have continually managed to muster an average attendance of over 80%.

Four proposed standards and four recommended practices have now been completed in the video-tape recording field. The four proposals to be submitted to the ASA Sectional Committee C98 are: Video Tape Leader, Characteristics of Audio Records, Tape Speed, and Tape Dimensions. The four Recommended Practices are: Video Modulation Levels, Patch Splices, Signal Specification for Video Alignment Tape, and Tape Vacuum Guide.

Five additional projects are now in draft stage, dealing with tape reels, track dimensions, control-track specifications, pre- and post-emphasis and 7½-in./sec recording speed proposals.

Summary

The limited space available here permits only a brief résumé of the activities of our Engineering Committees, and perhaps by summarizing we can visualize the amount of time and effort devoted to this work. At present our eleven committees are concerned with over 110 projects. Of these, the eight committees meeting in Los Angeles completed the engineering work on 37 projects prior to meeting, and an additional 18 projects at the meeting. Twenty-seven projects were reviewed and approved for further processing, and 24 new projects initiated.

The technical activities of the SMPTE Engineering Committees are quite often lost in obscurity once a project is completed, and most certainly a single-page American Standard does not reflect the long hours of scientific work that have been devoted to the subject. However, one of the major contributions of the Society to progress is this organized engineering effort on the part of its Engineering Committees. The men forming these committees have been selected for their individual competence. They come from widely separated industrial locations, ready to give time and effort to progress — progress along that never ending road of scientific knowledge and engineering achievement. The work of these committees is notable for the breadth of view taken.

The basic considerations are good science, good engineering rather than company advantage. Surely these workers have a right to be proud of their work.—Alex E. Alden, Staff Engineer.

Education, Industry News

The Hollywood Section will hold a one-day Symposium on the technical aspects of television as a medium for instructional communication on September 22 at the Los Angeles State College, Los Angeles. Plans have been developed by Ralph E. Lovell, Hollywood Section Chairman; John C. Mahon, Jr., Papers Chairman; Howard F. Stucker, Local Arrangements Chairman; and Fred Godfrey, Registration Chairman. Tentative plans for subjects of discussion at the Symposium include a number of vital issues. Among them are respective merits and drawbacks of vidicon and image-orthicon studio cameras; advantages and disadvantages of instructor-controlled and director-controlled production; and a survey of the relative costs of tape and TV film for distribution of programming. While discussion topics have been selected primarily for the enlightenment, by exchange of ideas, of technical personnel, the Symposium is open to all interested persons. Registrants are expected from locations throughout California and neighboring states.

Five Fellows of the SMPTE and four members have been elevated to the Grades of Life Fellow and Life Member under provisions set up by the Society following revision of applicable Bylaws to create these grades. First Life Fellow is John I. Crabtree (*Journal*, p. 524, July 1962). Also elevated to the grade of Life Fellow are Don M. Alexander, James R. Cameron, E. H. Hansen and Axel G. Jensen. Newly created Life Members are Edmund McD. Bendheim, Karl M. MacIlvain, M. W. Palmer and Samuel G. Rose.

IFPA Awards

The 1962 National Conference of the Industry Film Producers Association (IFPA) was held June 14-16 at the University of California, Los Angeles. Climaxing the three-day conference was the annual Awards Banquet and presentation of the Cinema Industry "Cindy" awards to producers of the best industrial films of 1961.

A special event of the evening was the presentation of the Jay E. Gordon Memorial Award to John Flory of Eastman Kodak for the greatest individual contribution during 1961 to the field of business and industrial motion pictures. (The award was established as a memorial to Jay E. Gordon who died March 17, 1960. Mr. Flory is the second recipient of the award. O. H. Coelln, editor and publisher of *Business Screen*, made the presentation to Mr. Flory.) A special award was presented to Major General Arno H. Luehman, Director of Information for the U.S. Air Force, in recognition of his long-time support of industrial film production. Also, a special Cindy award was presented to John R. Moore, President of Autonetics Division, North American Aviation, Inc.

The firm has pioneered in the use of closed-circuit TV for employee motivation and training.

Cindy awards in various categories (firsts) went to (1) *The Aerojet-General Corporation Interior Computer Program*, produced by Aerojet-General Corp.; (2) *The Persuasive Push*, produced by Technical Communications, Inc., for Electro-Optical Systems, Inc.; (3) *Aerospace Medical Research at Holloman* and (4) *Korsa — Battleground of Liberty*, both produced by Air Photographic and Charting Service (MATS) 1352d Photo Group, Lookout Mountain Air Force Station; (5) *Corrosion in Aircraft*, produced by Douglas Aircraft Co.; and (6) *It's a Matter of Business*, produced by Lockheed — Georgia Company.

Finalist awards went to (1) *Photography in the USAF — Optical Instrumentation at Vandenberg Air Force Base* and (2) *Aerospace Force Communications — the Reins of Command*, Air Photographic and Charting Service; (3) *Principles of Reliability*, the Martin Company of Baltimore; (4) *X-15 1960 Annual*, North American Aviation, Inc., Los Angeles Division; (5) *In Your Hands*, produced by United Airlines, Education and Training Dept.; and (6) *Wings for Freedom*, produced by Lockheed Aircraft Corp., California Division.

Eight Ideal Theaters

The Ideal Theater: Eight Concepts, an exhibition now on tour, shows designs, photographs and stage or architectural models of concepts developed by eight designer-architect teams who were awarded grants by the Ford Foundation Program in Theater Design. The exhibit, shown first in New York in the winter and early spring of 1962, was designed by Peter Larkin, New York theater designer, in cooperation with the firm of Alex-Mauro-Witteborg. Following is a list of the designers and architects and brief notes on the projects:

Ralph Alswang, stage designer, and Paul Rudolph, architect — development of a theater using new film-projection techniques and live stage action simultaneously.

Eldon Elder, stage designer, and Edward Durell Stone, architect — design of a 2000-seat outdoor theater with a roof that opens and closes mechanically.

Barrie Greenbie, designer, and Elizabeth Harris, choreographer — design of an ideal theater for the modern dance, providing a number of mechanically adjustable stage levels.

David Hays, stage designer, and Peter Blake, architect — design of a small open-stage theater made flexible by simple architectural means.

George C. Izenour, designer-engineer, and Paul Scheikher — development of a theater complex comprising three theaters, two of which are convertible among proscenium, Elizabethan, and arena-stage forms by an analog and digital computer.

Frederick J. Kiesler, designer and architect — design of "The Universal," an urban theater center including a flexible theater adaptable to many uses.

Jo Mielziner, stage designer, and Edward L. Barnes, architect — design of a theater to house "intimate music-drama" outside the traditional operatic and musical-comedy forms.