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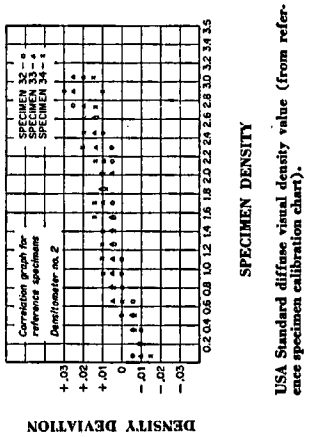
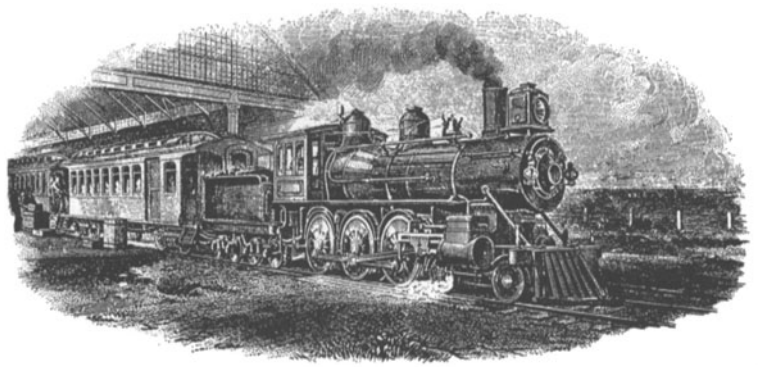
Appendix

(The Appendix is not a part of this SMPTE Recommended Practice, but is included to facilitate its use.)



USA Standard diffuse visual density value (from reference specimen calibration chart).



Biographical Note

Gerald M. Best, who "retired" in 1962 after 34 years in the motion-picture industry (30 years with Warner Bros. Studios where he was Chief Recording Engineer and four with the Disney Studios) is actively successful in a new career. Within the last seven years he has authored five books about railroads.

Mr. Best was graduated from Cornell University in 1917. Following graduation he served with the U.S. Army during World War I. After the war he remained for a time in France to continue his studies at the University of Nancy. He returned to the United States in 1919.

During his years with the motion-picture industry he became widely known as an authority on sound recording. He contributed a great deal to the development of "talking pictures" and he has been granted a number of patents for his inventions and developments. He published widely in various scientific and technical journals. A number of papers which he authored have appeared in the *Journal*, among them, "Economies in Sound-Film Processing" (September 1933); "Automatic Soundtrack Editing Machine" (September 1937); "Latest Developments in Variable-Area Processing" (with A. C. Blaney) (March 1939); "Soundtrack Projection Microscope" (August 1939); "Soundtrack Projection Microscope" (August 1939); "Modern Studio Laboratory" (with F. R. Gage) (September 1940) and "Film Conservation Methods at Warner Bros. Studios" (November 1943).

Mr. Best has long been interested in the romance and history of the great railroads — inseparably a part of the romance and history of America. It is a subject that seems to have special appeal for the general public now that the railroads are following the buffalo and the pinto pony into folklore if not yet wholly into history. So, instead of making his interest in railroads a mere hobby, Mr. Best is rapidly becoming an authority on the "iron horse." (Publication of five books in seven years must surely be indicative of a career rather than a hobby.)

Author Best's most recent book is *Iron Horse to Promontory* in which he tells the story of locomotives, the rolling stock and the story of the men who ran the trains on the Pacific railroad. This book is especially timely because of the Centennial of the Golden Spike being celebrated this year.

Mr. Best has been a member of the Society since 1934. He became a Fellow in 1949 and was made a Life Fellow in 1965. His activities in behalf of the Society include 17 years of service on the Board of Editors (1951 to the present). He has also served on the Progress Report Committee and he has been a Manager of the (then) Pacific Coast Section, having been elected in 1945.

EDUCATION INDUSTRY NEWS

Academies Awards

Academy of Motion Picture Arts and Sciences

SMPTE members and sustaining member firms were again preponderant on the roster of Academy Award winners in the Scientific-Technical category when Class I Statuettes and Class II Plaques were presented for achievements during 1968.

Members thus honored include Dr. Herbert Meyer, Donald W. Norwood, Edmund M. DiGiulio, Norman S. Hughes, Carl W. Hauge and Edward H. Reichard. Sustaining member firms receiving awards include Eastman Kodak Co., Producers Service Co., Todd-AO, Mitchell Camera Co. and Consolidated Film Industries.

Class I Statuettes were awarded jointly to Dr. Herbert Meyer, Motion Picture and Television Research Center; Philip V. Palmquist, Minnesota Mining and Manufacturing Co., and Charles D. Staffell, Rank Organization, for the successful development of the reflex background projection system for composite cinematography. According to the citation, this system is comprised of a reflex screen material of high reflectivity in combination with the coaxial camera-projector configuration by which a projected background may be photographed together with the foreground action.

Eastman Kodak Co. was the recipient of a Class I Statuette for the development and introduction of a color reversal intermediate film for motion pictures. The citation noted that this achievement in film manufacturing technology provides the motion-picture industry with an important new film, making it possible to produce in one printing stage color duplicate negatives that meet exacting specifications as to graininess, sharpness, contrast and color fidelity.

Class II Plaques were awarded for nine achievements by eight individuals and nine firms:

(1) to Donald W. Norwood for the design and development of the Norwood Photographic Exposure Meters. The exposure meters employ a hemispherical light collector in a manner which takes into account both light intensity and the geometry of illumination to determine the optimal exposure for any subject.

(2) to Eastman Kodak and Producers Service Co. for the development of a new high-speed step-optical printer. The printer, utilizing a novel film transport, is capable of manufacturing reduction prints from original 35mm negatives at high speed with optimal image quality. (See "A New High-Speed Step Optical Printer" by Charles Cowan, E. B. McGreal, Oscar Jarosch and Manfred Michelson, *Jour. SMPTE, 76:* 331–334, Apr. 1967.)

(3) to Edmund M. DiGiulio, Norman S. Hughes and Niels G. Petersen of Cinema Product Development Co. for the design and application of a conversion which makes available the reflex viewing system for motion-picture cameras. The reflex conversion kit, which may be applied to conventional motion-picture cameras, replaces coupled finders and consists of a beam-splitting mirror which presents to the cinematographer a bright, flicker-free view of the image at all times.

(4) to Optical Coating Laboratories, Inc., for the development of an improved

anti-reflection coating for photographic and projection lens systems. The multilayer coating material increases the speed of lens systems and improves picture quality by suppressing unwanted images and stray light to a degree previously unattained.

(5) to Eastman Kodak Co. for the introduction of a new high-speed motion-picture color negative film (Type 5254). The new film has twice the exposure index value of its predecessor with no increase in graininess and without sacrificing rendition of color and image sharpness, the citation noted. (See SMPTE *Journal*, Sept. 1968, pp. 988, 990.)

(6) to Panavision Inc. for the conception, design and introduction of a 65mm handheld motion-picture camera.

(7) to Todd-AO and Mitchell Camera Co. for the design and engineering of the Todd-AO handheld motion-picture camera, a wide-film lightweight camera which incorporates reflex viewing.

(8) to Carl W. Hauge and Edward H. Reichard of Consolidated Film Industries and E. Michael Meahl and Roy J. Ridenour of Ramtronics for engineering an automatic exposure control for printing-machine lamps. The exposure control continuously monitors the printer light with a light sensor module which regulates the power supplied to the lamp and thereby maintains constant light output. (A paper describing this development ("Automatic Lumen Output for Printing-Machine Lamps") was presented at the Society's 103d Conference in Los Angeles by the recipients named above.)

(9) to Eastman Kodak Co. for a new direct positive film and to Consolidated Film Industries for the application of this film to the making of post-production work prints. This new orthochromatic film, which is capable of producing a reversed image by normal positive processing, affords a simple procedure for obtaining improved duplicates.

Television Arts and Sciences

The National Academy of Television Arts and Sciences awarded two Emmys (a statuette and a citation) for television engineering developments in 1968. Eastman Kodak Co. received a gold statuette in recognition of the development of the ME-4 process. The award was accepted by Dr. Norwood Simmons, Assistant Vice-President and General Manager of the Motion Picture and Education Markets Division, as the representative of Eastman Kodak, at ceremonies at Carnegie Hall, New York. Columbia Broadcasting System received a citation for development of the Minicam Mark VI, a handheld television broadcast camera that uses computer techniques to improve live telecasts of sports and news events. The award was accepted on behalf of CBS by Joseph A. Flaherty, General Manager of Engineering and Development for CBS Television Network, and Renville H. McMann, Jr., Vice-President of Engineering for CBS Laboratories in Stamford, CT, where the system was developed.

The ME-4 system was cited at the presentation ceremonies for "making it possible to develop color film with greater speed and sharper images than ever before, materially facilitating the presentation of news and other programs."

The Minicam Mark VI was cited for "digital control technique in a miniaturized television camera which provides a new degree of mobility in television coverage."

Super 8mm Production and Projection was the subject of an all-day seminar, co-sponsored by the Society's San Francisco Section and the Northern California Chapter of Information Film Producers of America, which was held May 24 at the Japanese Trade Center in San Francisco. Highlights of the program included a demonstration of educational uses of 8mm by Dr. Jerrold Kemp of San Jose State College, a discussion of 8mm production problems by William J. Wagner of Wells Fargo Bank Training Department and a paper by Irwin A. Moon, "Potential and Problems of Super 8mm" which was presented by James Howland of the Moody Institute of Science.

Projector demonstrations by eight different manufacturers and an equipment display allowed the audience to compare notes on the advantages of various systems and formats presently available.

Other events included a panel discussion on Laboratory and Production Techniques. Panel members included William A. Palmer of W. A. Palmer Films, Inc., Leo Diner of Leo Diner Films, Inc., and Burton Smith of Cine-Chrome Laboratories, Inc. The seminar concluded with a lively discussion on Problems and Growing Pains of Super 8mm. Panel members were (moderator) George Kent of Audio Graphic Films, Mr. Palmer, Jack Whalen of Modern Talking Pictures, Dr. Kemp and Mr. Wagner.

A course in Television: Tape and Film will be held at the University of Southern California, beginning September 17, through January 14, 1970. The course is sponsored by USC's Division of Cinema and SMPTE. Classes will be held on Wednesdays from 7:15 to 10:15 P.M. Outstanding lecturers in the fields of television and motion pictures will conduct classes. Registration is limited to 90 students. The course is non-credit and the enrollment fee is $50. Further information is available from Herbert E. Farmer, Director of Services, Dept. of Cinema, University of Southern California, University Park, Los Angeles, CA 90007.

The second conference on Photographic Science and Technology sponsored by Hindustan Photo Films Manufacturing Co. will be held October 6–7 at Indunagar, Ootacamund-5, India. The main objectives of the conference are (1) to afford an opportunity to scientists, engineers and technologists to meet and discuss common problems; (2) to stimulate interest in the study of current problems in photographic science; (3) to encourage interest in the study of particular problems relating to the photographic industry; (4) to discuss technical problems of manufacturers and users of photographic materials; and (5) to discuss problems regarding import substitution. Papers will be presented dealing with various aspects of photographic science and technology, such as photographic theory, photographic chemicals, optics, color and other subjects. Further information is available from Dr. S. K. Jain, Secretary, Conference on Photographic Science and Technology, Hindustan Photo Films Manufacturing Co., Indunagar, Ootacamund-5, India.

The California Institute of the Arts has embarked on a $54 million development program to establish the first center for professional training in all the arts in the new city of Valencia, CA. The Institute was established in 1961 when Chouinard Art School (founded in 1921) and the Los Angeles Conservatory of Music (founded in 1893) were merged by the late Walt Disney. A gift of $5 million was presented by the Walt Disney Foundation toward accomplishing construction of the new center. The Institute will be located on a 60-acre site and will consist of a single complex of six schools embracing art, music, design, theater and dance, film and general studies. The interrelation of the creative disciplines and the interaction between the campus and the new city rising around it are some of the elements in the conception of a community of the arts.

A tri-storied structure covering four acres will house classrooms, workshops, studios, laboratories, galleries, student union and eight performance areas including a 200-seat proscenium theater and a 50-seat changing-form lab-theater.

In the School of Film, the student may work with a team — writer, director, editor, cameraman — or he may make a film as a lone venture. In either case, the stress will be on the inquisitive and evocative power of the medium, and will apply equally to television where resources may have only barely been suggested. The most advanced equipment will be available to be used under expert guidance. As a film environment, the school will also take advantage of the major studios nearby for faculty consultation and additional resources.

Four seminars to be held September 15–19 have been announced by Rochester Institute of Technology, School of Photographic Science and Technology, One Lomb Memorial Drive, Rochester, NY 14623. The first seminar will be on The Silver Halide Emulsion — Physical, Chemical and Photographic Properties. Topics include properties, structure, elements of emulsion making, and relation of chemical and physical properties to sensitometric, processing characteristics and image structure. The second seminar, on The Photographic Material as a Response System, will discuss experimental methods of evaluating performance, nonlinearity in photographic processes and methods of making valid inferences from photographic images. The third seminar, on Photographic Chemistry, will discuss developing agents and organic classification, development, monobaths, color coupling, adsorption of radiation at molecular level, radical formation and photo polymerization. Topics to be discussed at the fourth seminar on Processing Control or Statistical Quality Control of Photographic Processing include processing

chemistry, sensitometry, hardware and statistical quality control.

Local Origination Television Services (LOTS) of Evansville, Ind., and International Video Corp., 675 Almanor Ave., Sunnyvale, CA 94086, have announced production of a color video-tape program service for CATV. The service provides 18 hours of programing per week delivered to subscribing systems on IVC 1-in video tape. The types of video-taped programs include sports, feature films, travelogues, ladies shows and cartoons. The service also provides an instructional sales training course on IVC video tape to show CATV operators how to obtain a revenue from local origination through local and national advertisers. Another video-taped training program shows techniques for low-cost production of local commercials. LOTS will also provide a 16mm film dubbing service so that systems operators can convert advertisers' 16mm film to tape.

A Most Exceptional Fish — The Seahorse and **Strange Partners — Symbiosis in the Sea,** films produced by Reela Educational Films, a division of Wometco Enterprises for its new educational motion-picture series, *The Living World of the Sea* have been awarded CINE Golden Eagle Certificates and *Strange Partners* also received the top award in the Nature and Wildlife category at the 11th Annual American Film Festival. Each of the award-winning films combines underwater photography with animation in studies of undersea life.

The Educational Broadcasting Institute, an intensive 30-hour course on the operation and maintenance of helical-scan video-tape recorders, will be held August 17–20, it was announced by National Association of Educational Broadcasters, 1346 Connecticut Ave., NW, Washington, DC 20036. The three-day course has been specifically designed to give routine operational and maintenance skills to nontechnical school personnel. A number of new course materials texts and visuals will be used and a number of leading equipment manufacturers have contributed machines for laboratory use. The course assumes no prior training in video-tape recording on the part of the participants and only an elementary knowledge of television systems in general.

The 15th Annual Robert Flaherty Film Seminar will be held August 26–September 2 at the Hotchkiss School, Lakeville, CT. The seminars were begun 15 years ago by Mrs. Frances Flaherty, widow of the famous documentary filmmaker when a few friends gathered at the Flaherty home near Brattleboro, VT, for a week of informal film viewing and discussion. The seminars gradually increased in scope and International Film Seminars, Inc., was formed to carry on the annual sessions. Further information is available from the 1969 Program Coordinator, D. Marie Grieco, at 505 West End Ave., New York, NY 10024.

The 5th Chicago International Film Festival will be held November 8–19 in Chicago, IL. The Festival will include a diversified collection of motion pictures from the feature film to the short subject, television productions and commercials as well as student, industrial and educational films. There will be lectures by visiting film directors, three days devoted to developments in student films, an exploration of the latest trends in multimedia techniques and public service programing and two film retrospectives. Further information is available from The 5th Chicago International Film Festival, P.O. Box 4566, Chicago, IL 60614

Continuing Engineering Studies (CES), Monograph No. 3, containing papers presented at the third meeting of the American Society for Education, CES Division, held November 20–22 in Milwaukee is available from American Society of Engineering Education, 2100 Pennsylvania Ave., NW, Washington, DC 20037, at $2.00 per copy. Monographs No. 1 and No. 2 containing papers presented at CES conferences in Chicago (1966) and New Orleans (1967) are also available at the same price. Monograph No. 3 includes keynote addresses by members of the faculty of the University of Wisconsin, including Kurt F. Wendt, Dean of the College of Engineering, Fred Harvey Harrington, President, and Paul J. Grogan, Professor of Engineering, University Extension.

The 45th Annual Convention of the National Association of Educational Broadcasters will be held November 9–12 at the Sheraton Park Hotel, Washington, DC. The main theme of the convention will be educational broadcasting and social responsibility. An exhibit will be held in conjunction with the convention. Further information is available from Miss Patricia K. Moran, National Association of Educational Broadcasters, 1346 Connecticut Ave., NW, Washington, DC 20036.

Red Lake Laboratories has announced a series of four four-day meetings on high-speed photography. The meetings are conducted annually (*Journal*, p. 968, Sept. 1968). The 1969 series has been dubbed the Red Lake Klinic. The first two meetings were held in June and July in Chicago and New York. The third meeting will be held August 18–20 in Washington, DC, and the fourth meeting will be held September 29 – October 1 in Los Angeles. Further information is available from Klinic Director, Red Lake Laboratories, Inc., 2971 Corvin Drive, Santa Clara, CA 95051.

Béla Gaspar, 240 South Oakhurst Drive, Beverly Hills, CA 90212, has announced the re-establishment of his laboratory and the re-acquisition of his patents, including the patent for the dyebleach process known as Gasparcolor. This is a process whereby the color photographic image is produced by chemical destruction, with the aid of the silver image, of otherwise very light stable dyes by means of a chemical reaction discovered by Dr. Gaspar.

Dr. Gaspar has specialized in the field of color photography since 1926. He holds some 116 United States patents and many foreign patents. Among his early developments is the integral color mask used for automatic color correction. Some of his early patents were assigned to Eastman Kodak Co. (*Journal*, p. 589, Oct. 1955). In announcing his new activities, Dr. Gaspar said that he is now in a position to continue his independent development of new products and processes.

Byron Motion Pictures, Inc., 65 K St., NE, Washington, DC 20002, has acquired the new Beckman Automatic Titrator and Endpoint Detector and other new laboratory equipments designed to save time and increase efficiency in laboratory operations, it was announced by President Byron Roudabush. The Beckman Automatic Titrator and Endpoint Detector working together with the Beckman SS-2 pH Meter are used to increase speed and accuracy in many chemical operations, the announcement stated. Mr. Roudabush noted that the Byron laboratory is believed to be the first to acquire the Beckman equipment. The new instrument automatically performs potentiometric and pH titrations formerly accomplished by a tedious procedure involving plotting curves by hand. Using the new instrument, the operator simply pushes a button and the titrator is filled, the titration is run and the machine is shut off — all automatically. Byron Motion Pictures has also acquired an Ainsworth Model 10-N Analytical Balance, a single-pan substitution balance capable of weighing to 0.1 mg, to enable the laboratory to make its own reagents.

LewRon TV Productions, Hollywood, has announced installation of an eight-channel audio console constructed by Electrodyne Corp. of North Hollywood in its studio. The console has 56 inputs and 52 mixing positions. It provides eight-, four-, and two-track mono outputs and incorporates stereo to allow simultaneous recording of eight-track mono and stereo or four-track mono and stereo. The console also incorporates an eight-position sub-mixer called the Octa-Quad. The system contains reverberation equalization and limiter-compression plus public address and floor-feed facilities. Instantaneous pushbutton selection allows monitoring a specific mike output. A mike muting system permits immediate playback for pre-recording without having to close the mike mixing inputs, thus leaving the pre-set mix undisturbed. In announcing the installation, Ron Spangler, LewRon President, said that the console would be made available to the industry for production and post-production as well as being used for LewRon productions on the Goldwyn lot.

Hervic Corp., 14225 Ventura Blvd., Sherman Oaks, CA 91403, has been appointed exclusive United States distributor for the Hydrofluid Jr. tripod manufactured by National Cine Equipment. The tripod is designed to support motion-picture cameras up to 20 lb. It tilts from −85° to +85° and has an integral leveling-ball for quick leveling.

Cinema Beaulieu, a division of Hervic Corp., has been appointed by Martel Electronics, exclusive United States distributor for Uher 1000 Report Pilot ¼-in

tape recorder. The Uher 1000 weighs 7 lb and is specially designed for sound/film synchronization.

Spartaco Maggi, Largo Magna Grecia 3, 00183 Rome, Italy, is the agent in Italy for Bach Auricon, Inc., of Hollywood. The Italian firm is sales representative for Bach Auricon cameras and other motion-picture equipments.

The RCA Systems Programing Research Laboratory, a laboratory specifically devoted to computer software research, has been established at Princeton, NJ. Facilities of the laboratory will include three computers, the RCA Spectra 70/45, Spectra 70/46 and a 604 scientific computer. The research will be concerned with the development of a man-machine interface that will promote more efficient use of the computer and its resources. Research will be conducted in systems architecture and computer languages. The language research deals with techniques for translating between relatively simple languages suitable for humans to use in providing information and directions to computers and complex languages directly usable by computers. Nathan L. Gordon has been appointed Director of the new laboratory.

The Professional Electronic Systems Department has been established at Burbank, CA, by Radio Corp. of America. The new department is a part of the RCA Commercial Electronics Systems Division, Camden, NJ. Manager of the new department is Gordon W. Bricker, who is Manager of West Coast Operations at Burbank. In his new post he will continue his responsibility for the engineering, manufacturing and other activities at Burbank and in addition will have responsibility for professional television equipment produced at the Burbank plant. The new department's product line will also include sound-on-film recording equipment.

RCA has sold its electron microscope business to the Forgflo Corp., Sunbury, PA, according to terms of an agreement approved by the Boards of Directors of RCA, Waltham Industries and Forgflo. It includes RCA's inventory of electron microscopes, subassemblies in process, microscope patents and all other data required for conduct of the business. No RCA plant facilities are involved in the transaction. Forgflo was recently acquired by Waltham Industries Corp. The firm manufactures magnetic head recording and playback instruments for use in color TV recording systems and in data storage and retrieval systems. RCA has produced electron microscopes since 1940. Electron microscope maintenance and replacement parts for RCA instruments will continue to be available from RCA.

The Westrex Showbus, described as a motion-picture theater on wheels, will travel 12,000 miles and visit 38 cities to demonstrate the Westrex 70mm projection and sound system to theater operators in the United States and Canada. The Showbus has been modified with a bubble roof to accommodate the 7½-ft-high projector. The Westrex equipment is designed to handle both 35mm and 70mm films. The modular design of the Westrex 70 permits expansion of the basic 35mm or 70mm projection and single-channel sound to a combination projection and multichannel sound. Changeovers are accomplished by means of a single pushbutton in the pedestal. Three prefocused lenses are installed in the turret. James A. Mahon, Manager of Theater Equipment Sales for Westrex will accompany the Showbus to demonstrate the new projector.

Kodak Norge A/S, a new associate company of Eastman Kodak Co., has begun distribution of Kodak photographic products in Norway, according to terms of an agreement signed in Oslo by officials of Kodak and of J. L. Nerlien A/S, the company that has distributed Kodak photographic products in Norway for the past 80 years. In Norway, Kodak Norge is renting facilities from Nerlien. These include head offices in Oslo, a newly completed warehouse and color processing laboratory in the neighboring town of Baerum and branches in Bergen and Trondheim. About 270 members of the Nerlien staff have joined Kodak Norge and continue in the same positions and with the same conditions of employment as they had with Nerlien. C. Karl Rieber-Mohn, Sr., Managing Director of Nerlien since 1930 continues as a consultant to Kodak Norge. John A. Berggren, formerly General Manager of Kodak Oy in Finland, has been appointed General Manager of Kodak Norge.

International Producers Centre (IPC) has announced completion of the $1 million studio complex for motion-picture and television production, first in the Bahamas, located on a 45-acre tract about 16 miles east of Freeport. The center includes two sound stages with a total of 16,000 ft² of floor space. Each soundstage is soundproofed and has a 45-ft ceiling with overhead catwalks and running-beams for holding lights. A 5,000-ft² administration building contains company offices and a wing devoted to wardrobe, makeup, projection and sound recording. IPC President is Douglas W. Connor. The staff also includes Pierre G. Snyders, Managing Director, Administration; James Magee, Special Projects Director; and J. Burgi Contner, Director of Photography.

Movielab, Inc., 619 W. 54 St., New York, NY 10019, has acquired the professional motion-picture processing and the video divisions of Berkey Photo, Inc., including laboratory facilities in both New York and Los Angeles. The announcement was made jointly by Movielab and Berkey Photo. It is expected that two representatives of Berkey Photo will be named to the Board of Directors of Movielab.

Kalvar Corp. and Southern Microfilm Corp., both of New Orleans, LA, have entered into an agreement whereby Southern Microfilm will be operated as a division or subsidiary of Kalvar with no change in management. Kalvar Corp. specializes in dry photography and manufactures films that are developed by heat alone. Southern Microfilm is a service organization providing microfilming, office copy and other business services. Present plans include expanding the microfilm services to include systems for storage and retrieval of business information.

WRS Motion Picture Laboratory, 210 Semple St., Pittsburgh, PA 15213, has acquired Pittsburgh Motion Picture Laboratory, which will be operated as a division of WRS. The announcement was made jointly by F. Jack Napor, WRS President, and Robert Marloff, President of Pittsburgh Motion Picture Laboratory. WRS supplies 16mm and 35mm color and black-and-white processing and printing. The Laboratory supplies producers services, equipment sales and rentals, optical and special-effects work and sound studio services.

Western Educational Society for Telecommunications (WEST) is a new organization formed by the merger of Western Radio and Television Association (WRTA) and West Coast Instructional TV (WCITV). WRTA President James Loper will become Chairman of the Executive Committee of West, pending election of officers of the new organizations. WEST headquarters are at 1313 North Vine St., Los Angeles, CA 90028.

National Instructional Television Center (NIT), Box A, Bloomington, IN 47401, has announced formation of a new department for General Services. The department will be responsible for field, publication, information, business and customer service operations. NIT was established in 1965 to develop and make available educational television programs. It now serves more than 140 educational organizations, including state educational television networks. Director of the new department is Donald L. Sandberg.

Television Equipment Associates, Box 1391, Bayville, NY 11709, has been appointed exclusive distributer for the Tele-Pat IVB test pattern illuminator manufactured by Tele-Measurements. The test pattern illuminator has been designed specifically for the registration and balance of color TV cameras. The test equipment is factory-calibrated for Plumbicon, vidicon or image-orthicon color cameras and has field calibration controls for variable light output of 50 to 500 fL, color temperature adjustable from 2900 °K to 3300 °K.

An addition to Eastman Kodak Co.'s film testing laboratories is under construction at Kodak Park. A four-story reinforced concrete structure will increase the size of the film testing division facilities from the present 176,000 ft² to 245,850 ft² by early 1971. The new building will be fully air conditioned and humidity controlled to meet requirements for test conditions. Temperature will be held at 70° and the relative humidity at 50% to maintain a constant atmosphere in the laboratories.

Complete Mitchell BNC Reflexes are available for rental from The Camera Mart, Inc., 1845 Broadway, New York, NY

10023, it was announced by Chick Hyman, President. Mr. Hyman recently returned from a trip to California with other members of the Camera Mart staff where the group visited California manufacturers of motion-picture equipments as a means of acquiring new and advanced models.

McCarthy Distributors, formerly located at 250 W. 57 St., New York, have moved to new and larger quarters at 202 E. 44 St., New York. The new facility accommodates the firm's expansion into new audio-visual lines.

Telecine Film Studios, Inc., 100 S. Northwest Highway, Park Ridge, IL 60068, has announced the availability of advisory services in the arrangement of live meetings, such as industrial meetings, trade show participations and new product introductions. The firm offers its services to plan, produce and stage live meetings.

Automated Theatres of America, Inc. (ATA), has announced construction of twin motion-picture theaters, each seating 350, at the Newport Plaza Shopping Center, Newport, KY. The site was selected because the city and neighboring communities (population 150,000) at present have no motion-picture facilities.

A new recording division has been formed by Superscope, 8150 Vineland Ave., Sun Valley, CA 91352, to produce and market, under its own label, pre-recorded reel-to-reel tapes, 8-track cartridge tapes, stereo cassettes and records. Jack Wagner has been appointed head of the new division.

The Hurdler, the first in a 26-film series dealing with the achievements of Negroes in America, tells the story of the late Dr. Charles Drew whose research in blood plasma led to the modern blood bank system. The series is being produced by Rediscovery Productions and will be distributed by the New York Times and its subsidiary, Arno Press. Other films in the series will explore the lives and accomplishments of Negro scientists, explorers and inventors. Running time for each of the 26 films in the series (16mm, color) will be about 16 min. The films will be available through the New York Times Library Services Division, Times Square, New York, NY 10036. Price of a 16mm color print will be $200 with special discounts for schools, libraries and other organizations subscribing to the entire series.

An electronic device called an harmonic compressor, which makes it possible to reproduce the human voice at double speed without distortion of the normal voice pitch, has been produced by the American Foundation for the Blind, 15 W. 16 St., New York, NY 10011, with the help of Bell Telephone Laboratories. The faster word rate approximates the speed at which many persons speed-read printed matter (300 to 400 words/min). The compressor will be used in the Foundation's program of tape and disc recordings for blind persons. It is expected that it will be especially helpful to blind students, researchers and executives since it will halve the time they now spend in getting information from recordings.

Taped speech is fed into the compressor and recorded either on tapes or discs at four times the original speed. The final tape or disc is then played at half-speed to achieve the end result of double the original rate. For example, speech recorded at 150 words/min is re-recorded at 600 words/min and then played back at 300 words/min. The device includes 120 integrated circuits, each of which utilizes from five to eight transistors; an additional 400 transistors are used, making a total of 1,124 transistors. The compressor also uses 40 different, specially designed filters. It is housed in a cabinet 6 ft high, 22 in wide and 18 in deep.

Direct broadcast of television programs from an orbiting satellite is a NASA project expected to be accomplished on an experimental basis by 1975. A vital element in the satellite project is the advanced antenna system being designed by Sylvania Electric Products Inc., 730 Third Ave., New York, NY 10017. Capable of relaying four programs simultaneously, the system is expected to transmit signals strong enough to be received by modified home equipment. (At present, antennas 97 ft in diameter are required for reception of satellite television signals. The signals are relayed to local stations for home broadcast.) According to preliminary designs the antenna system will include five dish-shaped reflectors, each measuring two feet in diameter. The reflectors can be steered to direct programing to specific areas, such as time zones or regions of countries covered by the satellite.

By transmitting communications in concentrated beams to small areas of the earth, the new system will increase the strength of the TV signals for home reception. The system will be designed to transmit 1,000 W. (Present satellite systems provide coverage to one-third of the earth and transmit 10 W.) An antenna two feet in diameter and a small converter will be required to receive the direct broadcasts on a home set. The satellite will be placed in orbit at an altitude of 22,300 miles where the spacecraft remains stationary in relation to the earth.

Performing Arts Review: The Journal of Management and the Law of Arts is a new quarterly published by Law-Arts Publishers, Inc., 453 Greenwich St., New York, NY 10013. The scope of the new publication will be the live and electronic performing arts, including theater, motion pictures, television, music and the dance. Coverage will also be given to subsidy, legislation, subsidiary rights, technological development in the arts and pertinent fine and graphic arts. The Editor is Joseph Taubman. Subscriptions are available at $10.00 a year. Single copies are priced at $3.50.

A Symposium on Support and Testing of Large Astronomical Mirrors contains papers presented at a symposium co-sponsored by Kitt Peak National Observatory and the Optical Sciences Center and Steward Observatory of the University of Arizona. The book, published in 1968, is edited by D. L. Crawford, A. B. Meinel and Martha W. Stockholm. The 252-page illustrated book contains some 30 papers. It is available without charge from The Optical Sciences Center, The University of Arizona, Tucson, AZ 85721.

Laminar Flow Clean Room Handbook (3d ed.) is available from Agnew-Higgins, Inc., 7532 Anthony Ave., Garden Grove, CA 92641. The 200-page book contains 15 chapters and more than 100 illustrations including photographs, charts and diagrams. The book presents basic principles of laminar flow clean air devices and explains how to apply them to work processes. It includes design guides for clean rooms and clean room air-conditioning.

Frank Lewin, musician, composer and motion-picture sound editor, is the composer of the music for a Requiem Mass in memory of Robert F. Kennedy, which was celebrated for the first time on May 27 before a congregation of some 2,000 persons assembled in the Princeton University Chapel. The requiem, described as "simple, yet powerful; modern, yet tonal," was sung (in English) by the Princeton High School Choir under the direction of William R. Trego. Mr. Lewin said that the idea for the Requiem Mass came to him while he was watching the funeral train bearing the body of Senator Kennedy pass through Princeton Junction.

As a composer, Mr. Lewin has successfully created compositions with a wide range of mood and form. One of his earlier compositions was a song cycle based on Blake's *Innocence and Experience* (*Journal*, p. 300, April 1961). His contributions to the *Journal* include *The Soundtrack in Non-theatrical Motion Pictures* (in four parts in the March, June and July 1959 issues of the *Journal*) and *Man and His Sound — Expo 67* in the March 1968 issue of the *Journal*.

Marvin Camras has been appointed Senior Scientific Advisor with the Electronics division of IIT Research Institute in Chicago. Prior to his new appointment he was Scientific Advisor with the division. He has been with IITRI since 1940 and during that time he has engaged continuously in magnetic recording research. He has made fundamental contributions to the development of wire and tape recording, motion-picture sound, stereophonic sound and video-tape recording. He is currently engaged on the development of a low-cost video-tape recorder for home use. In his new post he will continue to provide advisory support to IITRI research programs and will assist in defining new research areas to be explored at IITRI.

Saul Jeffee has been reelected Chairman of the Board of Directors and President of Movielab, Inc., 619 W. 54 St., New York, NY 10019, at a recently held annual stockholders meeting. Other members of the Board who were reelected include Frank S. Berman, Benjamin Bloom, Harry Brandt, W. Donald Brown, Herbert S. Camitta, Paul V. Connelly, Kenneth F. Dietz, Daniel S. Eisenberg, John J. Kowalak and David E. Winer. Officers reelected include Mr. Berman, Executive Vice-President; Mr. Bloom, Vice-President, Sales; Mr. Kowalak, Vice-President, Technology;

Peter P. Cardasis, Vice-President, Production; Norman E. Rinehart, Vice-President, Production; Mr. Rinehart, Vice-President, Production; Mr. Connelly, Vice-President Corporate Planning and Marketing; Mr. Eisenberg, Vice-President, Finance and Treasurer; Theodore R. Schreier, Secretary; and Oscar B. Sachs, Assistant Secretary.

David A. Dever has been appointed Eastern Marketing Manager for Berkey-ColorTran, Inc., a division of Berkey Photo, Inc. He will service ColorTran franchised dealers in eight eastern states and Puerto Rico. His headquarters will be at 25-20 Brooklyn-Queens Expressway, West, Woodside, NY 11377. Prior to his new appointment, Mr. Dever was Southern Marketing Manager for Berkey-ColorTran. He was responsible for the lighting layout design of a number of television stations in the southeast.

Edwin S. Raymond has been appointed Assistant Director, Engineering Services, of CBS Television Stations Div. He joined CBS Television Network in 1963. He had previously been associated with RCA as a design engineer.

William M. Webster has been elected Vice-President, RCA Laboratories, Princeton, NJ. He has been with RCA since 1946 and has made a number of significant contributions to tube and transistor development. As Vice-President he will be responsible for research activities at RCA Laboratories.

Donald S. McCoy has been named Director of the Consumer Electronics Research Laboratory at RCA Laboratories, Princeton, NJ. Dr. McCoy has been with RCA Laboratories since 1957 where he served as Head of Electroacoustics Research and as Head of Signal Processing Research before being appointed to his present position. He has done research on a variety of projects including theoretical analysis of frequency response and noise limitations in magnetic tape recording, signal-to-noise considerations in stereophonic disc recording and colorimetry of color TV systems.

Gerald Stone has been appointed Director of Research of LogEtronics Inc., Springfield, VA. He was previously Director of Engineering of Opticolor Corp., Plainview, NY, where he developed electro-optical systems. In his new post he will direct applied research in exploring advanced product concepts in electrooptical technologies and will evaluate potential new products prior to programed development.

Walter J. Washick has been elected a Vice-President of Houston Fearless Corp., of Los Angeles, and Kenneth C. Cleveland, Jr., has been elected a Vice-President and Director. Mr. Washick is General Manager of the NRI Division in Berkeley, CA. This division is engaged in the development and manufacture of instruments for photographic analysis. Mr. Cleveland will continue as Secretary-Treasurer of the company.

Jack Whalen has been named Western Sales Manager for Modern Talking Picture Service, Inc., 1212 Sixth Ave., New York, NY 10036, distributor of sponsored motion-pictures. Mr. Whalen's headquarters will be at 1145 McCadden Place, Los Angeles. Prior to his present appointment he was Manager of Modern's Los Angeles film library. He replaces Robert A. Kelley who was transferred to Washington. The company operates 32 film libraries and distributes public relations films and other sponsored films for more than 750 clients.

Charles T. Gindhart, Jr., President of the Society of Cinema Arts and Sciences, has been appointed Regional Sales Representative for WRS Motion Picture Laboratory, 210 Semple St., Pittsburgh, Pa 15213, for an area including New York, New Jersey, Delaware, Washington, DC, the New England States and the Philadelphia area. WRS supplies 16mm and 35mm color and black-and-white processing and printing. The laboratory provides producers' services, equipment sales and rentals, optical and special effects work and all sound studio services.

Thomas Garrett has joined Ranger Farrell and Associates, Irvington-on-Hudson, NY 10533, a firm of consultants specializing in the field of acoustics, lighting, audio-visual and theater. Mr. Garrett will provide consulting services in stage and house lighting and controls for theaters and auditoriums and theater rigging and seating design.

Col. Peter Boyko (Rtd.) has been elected Executive Vice-President of Capital Film Laboratories, Inc., 470 E St., SW, Washington, DC 20024. In his new post he will be in charge of laboratories in Washington, DC, Detroit and Miami as well as Super 8 City, Inc., in Alexandria, VA.

Harold C. Blakeslee has been appointed to the newly created post of National Sales Manager, Industrial and Educational Products, for International Video Corp., 675 Almanor Ave., Sunnyvale, CA 94086. In his new post he will have overall sales responsibility for IVC closed-circuit color video-tape recorders and color television camera.

Salvatore L. Raia has been appointed Director of Advertising and Public Relations for Visual Electronics Corp., 356 W. 40 St., New York, NY 10018, it was announced by James B. Tharpe, President. Mr. Raia was formerly employed by CBS Laboratories as Advertising and Sales Promotion Manager.

Charles L. Martin has been appointed Sales Engineer for Visual Electronics Corp. He will be responsible for sales of broadcast products in Nevada, Hawaii and Northern California. Mr. Martin's previous experience includes commercial and educational broadcast and CATV.

Obituaries

Ellis W. D'Arcy

A Governor, 1952–53

Ellis W. D'Arcy died May 15, 1969, in the Gary (Indiana) Methodist Hospital at the age of 65. His home was in Ogden Dunes, IN. During his long and active career in the field of motion-picture engineering and electronics he was known for his creative ability and his brilliant approach to the numerous projects in which he became involved.

He was born in Saulte Sainte Marie, MI, and was educated at the Lewis Institute of Technology. In 1929 he became a staff writer for *Radio Engineering* and *Projection Engineering* and in 1932 he joined Essanay Film Corp. as Assistant Chief Engineer. In 1936 he became founder and President of D'Arcy Recording Laboratories and in 1940 he joined DeVry Corp.

Early inventions and developments included photoelectric density meters, sensitometric control devices, sound film amplifiers, the Lindberg Sound Film Recording System and electronic control devices.

Mr. D'Arcy joined the Society in 1945. His sponsor was W. C. DeVry, who said of him at that time, "He [Mr. D'Arcy] has displayed a fine creative ability as well as a dominant ability in securing the cooperation of his associates in projects under his jurisdiction, resulting in the development and production of projects which have received the highest commendation of the [Armed] Services."

Mr. D'Arcy was made a Fellow of the Society in 1951 and he became a Life Fellow in March 1969. He was active in Society affairs and contributed greatly to the progress of the Society. His services to the Society included a term as Governor (1952–53) and long years of service on the Sound Committee and the 8mm and 16mm Motion Picture Committee. He was a member of both committees at the time of his death. He also served as chairman of various subcommittees and ad hoc committees including the Magnetic Sound Subcommittee and the Ad Hoc Committee on 16mm Magnetic Sound Reproduction and the Ad Hoc Committee on 8mm Magnetic Sound Standards.

His activities included authorship of numerous technical papers. Those appearing in the Journal include "Progress Report on 8mm Magnetic Sound Standards and Methods of Test Film Production" (February 1962); "Facts and Factors for Small Format Films" (September 1963); "Film-Exchange Foreign-Language Conversion