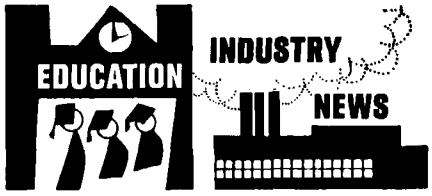


The 1966 Annual Conference of the Society of Photographic Science and Engineering will be held May 9–13 at the Hilton Hotel in San Francisco. Sessions are planned to include papers from all fields of photographic science and engineering. Topics will include photographic theory; chemistry; aerospace photography; film and paper processing; color materials and processes; optics; data handling and analysis; new materials and apparatus; image processing; and unconventional photographic systems. The conference will also include panel discussions, an engineering exhibit and demonstrations. Purpose of the exhibit is to recognize individual achievement in the development of apparatus, methods and techniques to achieve solutions to photographic engineering problems. Conference chairman is J. Kenneth Cornell, Lockheed Missiles & Space Co., P.O. Box 504, Dept. 25-62, Sunnyvale, Calif. Correspondence relating to papers and engineering exhibits should be directed to the Papers Chairman, Roland P. Michaelis, U.C. Lawrence Radiation Laboratory, Bldg. 47, Berkeley, Calif. 94720.

The Audio Engineering Society's 13th Annual Convention will be held April 25–28 at the Hollywood Roosevelt Hotel, Los Angeles. The technical papers program will cover various aspects of audio engineering. An exhibit will be held in connection with the convention. Papers chairman is John C. Baumann, Ampex Corp., 8467 Beverly Blvd., Los Angeles, Calif. 90048.

The Sixth New England Industrial Photographic Trade Show will be held March 29–30 at the King's Grant Motor Inn, Danvers, Mass. Sponsors are Claus Gelotte Inc., 185 Alewife Brook Pkwy, Cambridge, Mass. 02139, and Smith's Photographics Unlimited Inc., 269 Mass. Ave., Boston, Mass. 021123, in cooperation with the Industrial Photographers Association of New England.

Proceedings of Parts of the Symposium held by the Society of Photographic Scientists and Engineers (SPSE) in Washington, D.C., in October, have been published. The subject was Photography in Information Storage and Retrieval. The technical program included six sessions: Information Properties, Systems, Read-In/Read-Out, Storage, Optical Computers and the Symposium Summary. Thirty-four papers were presented in addition to the opening address by Symposium Chairman Edward K. Kaprelian on "Photographic Storage and Retrieval of Information: A Synopsis." Mr. Kaprelian is Technical Director of the U.S. Army Limited War Laboratory.

Of special interest were two invited papers, "Information Storage Density," by Marvin Camras, Illinois Institute of Technology Research Institute, and "Patent Search — Prospects and Problems," by Joseph Stitelman, U.S. Patent Office.

A wide range of related subjects was taken up under the various session topics. For example, subjects considered in the session on Storage included photochromic glass, thermoplastic imaging, electron beam recording, extended range film and digital data recording.

Proceedings of the Symposium were not published as such; however, a 98-page, paperbound volume, an advance printing of invited papers and summaries of all the other papers presented at the Symposium is available from SPSE, P.O. Box 1609, Main Post Office, Washington, D.C. 20013, at a price of $4.00 to SPSE members and $5.00 for nonmembers (10% discount for prepaid orders). The book contains full and detailed summaries, some with illustrations, diagrams, equations, etc. The papers by Mr. Stitelman, Mr. Camras and the address by Mr. Kaprelian are printed in toto. The paper by Mr. Camras covers nine pages and contains diagrams and a bibliography.

Arthur J. Miller is the newly elected President of Association of Cinema Laboratories Inc., 1925 K St., NW, Washington, D.C. Other newly elected officers are: Vice-President, A. E. Bruch, and Treasurer, Robert A. Colburn. Neal Keehn was reelected Secretary and Preston B. Bergin was reelected Executive Secretary.

The Fernseh-Technische Gesellschaft (FTG) recently held its 13th annual meeting in Berlin with an attendance of more than 500. Founded in 1952 by 27 representatives of German industry, the Post Office, broadcasting corporations and technical universities, its aim was (and is) that of acquainting scientists and technicians with the continuing developments of television engineering. Since 1952 the membership has increased to 300, among them 72 foreign experts.

The FTG is also interested in training qualified young people in the television engineering field. The Rudolf-Urtel fund, established in 1955 in memory of the late Dr. Rudolf-Urtel, provides for a certain sum each year to be used by technical universities in the field of television engineering to finance such undergraduate activities as attendance at FTG meetings, and the like.

The FTG Board is composed of two representatives of German industry, two of broadcasting corporations, one representative of the Federal Post Office and one representative of the technical universities. Present Board members are: (Industry) FTG President Dr.-Ing. e.h. Walter Bruch and Secretary Dpl.-Ing. Frithjof Rudert; (broadcasting corporations) Vice-President Prof. Dr. Richard Theile and Assistant Officer Director Rudolf Kaiser; (Post Office) Treasurer Dr. Johannes Müller; and (technical universities) Prof. Dr. Friedr Kirschstein.

ISO/TC 97 (committee on computers and information processing) which met October 20–22 in Tokyo, Japan, has approved worldwide data processing standards for coded character sets, magnetic ink character recognition (MICR), optical character recognition, paper tape, the programing languages of FORTRAN and ALGOL, and flow chart symbols, pending final approval by the 51 member nations of ISO. The meeting brought together 60 delegates from 12 countries, including the United States which holds the secretariat for the activity through the ASA, and four international organizations. The United States activity is conducted through ASA project X3 sponsored by the Business Equipment Manufacfacturers Assn. (BEMA).

The nine-man U.S. delegation was led by C. A. Phillips of BEMA. R. G. Chollar, Vice-President of the National Cash Register Co., was chairman of the Tokyo meeting. V. Henriques of BEMA acted as technical adviser to the secretariat and V. G. Grey of ASA was secretary.

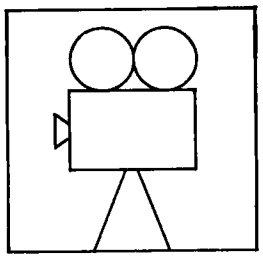
The Society of Photographic Scientists and Engineers has announced formation of a new SPSE Chapter in Connecticut. The Connecticut Chapter has been formed to serve that area by advancing the understanding and application of photographic science and engineering. Information is available from: Mr. Edward Kob, Perkin-Elmer Corp., Mail Station #83, Norwalk, Connecticut 06852.

The Instrument Society of America (ISA) will hold its 21st Annual International Conference and Exhibit October 24–27, 1966, in New York. Headquarters for the conference will be the Hotel New Yorker and the Statler Hilton. The exhibit will be held at the New York Coliseum. The theme is "Instrumentation for an Urban Society." Papers are invited covering the state-of-the-art in all major areas of instrumentation, including measurement, analysis, telemetry, information processing, and automatic control. In addition, presentations are encouraged with particular emphasis on the use of instrumentation in solving problems of modern urban society in such areas as air and water pollution, predictive and preventive medicine, air and ground traffic control, crime detection and safety. Further information is available from: 1966 Conference Program Coordinator, Instrument Society of America, 530 William Penn Place, Pittsburgh, Pa. 15219.

The First International Congress for Photography and Film in Industry and Technology will be held October 1–9 in Cologne, Germany, as part of the Photokina. The congress will be sponsored by the Deutsche Gesellschaft für Photographie (DGPh) and the Verein Deutscher Ingenieure (VDI). Papers will be presented in six categories: (1) photography and film as auxiliary means for technical and scientific research and development; (2) film in research, development and production: (3) photography in measurement and testing; (4) photography in production; (5) photography in microscopy and electron microscopy; and (6) special photographic techniques. Congress coordinator is Dr. L. Busch, DGPh President. Further information is available from: Deutsche Gesellschaft für Photographie e.V., Kongressbüro, 5 Köln, Neumarkt 49, Germany.

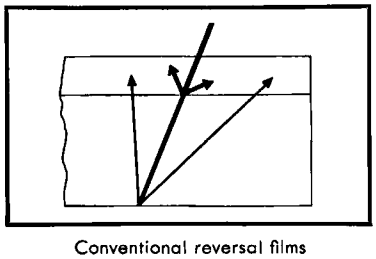
A technique to restore faded photographs through neutron irradiation has been developed by Eugene Ostroff, Curator of Pho-

Make motion pictures with flair, not flare. How Eastman encourages you with improved, anti-halation TRI-X Reversal Film.



It's our feeling that halos should be worn only by those who earn them. Street lights and headlights don't seem particularly deserving of halos. Neither do illuminated scoreboards or store fronts. But glaring halos, hotspots, background ghosts and angling streaks have shared the spotlight with cinematographers ever since night and existing-light shooting became possible. Now Eastman scientists have gone and done something about this problem that has plagued news, sports and documentary photographers.

Improved EASTMAN TRI-X Reversal Film, Type 7278, is the answer to halation and flare. It replaces the previous 16mm TRI-X Reversal Film that, with the best of films, had no defense against certain kinds of bright, unshielded light sources. In a night football game, for instance, your footage might typically have been degraded by brilliant lights ringing the field. Here's a cross-section diagram showing where such flare comes from.

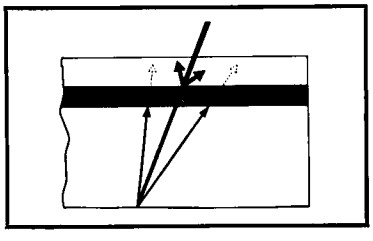


Conventional reversal films

A strong beam of light coming from the subject area goes through the lens and the emulsion. Some light is reflected from the surface between the emulsion and the film base and scatters to spread the image. Much of this light, however, goes right on through the base and is reflected from the back of the film base, bouncing back to the emulsion again, spreading the halo still further.

Most reversal black-and-white films have a dye in the film base to absorb this unwanted light. There's enough to prevent serious halation in normal brightness ranges, but *not* enough to avoid halation around light source images, or around bright highlights on shiny surfaces.

New TRI-X Reversal Film is now engineered to yield sharp images with extremely low halation even under the most harsh lighting situations. What we've done is diagrammed here.



Improved TRI-X Reversal Film

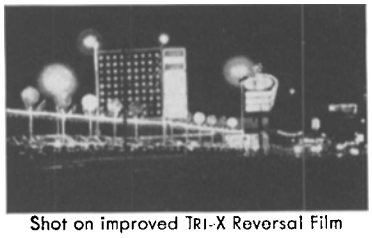
A special black dye layer between emulsion and base absorbs a large part of the light that gets through the emulsion. The same kind of gray base as before still takes care of most of the unwanted light going through the base and reflecting from the back. The new black layer is there to absorb the little that may still make its way back toward the emulsion. Prestol Bright lights no longer steal the show! If you're concerned with processing, you'll be glad to know that this new black layer disappears completely with processing—no special treatment required. One advantage of the improved TRI-X Reversal Film is that it requires no changes in present processing methods or equipment. You may be especially pleased with how beautifully the film holds up at 95° processing, which brings the processing time, dry to dry, down from eleven minutes to about four.

Here's another advantage. When we eliminate these obvious halos around bright light sources, we're also eliminating the more subtle halation around light areas in the normal brightness range. The result is improved acutance, or image sharpness.

TRI-X Reversal is a universal film. That is, it can be processed as a negative film in the conventional way, and as a negative film, it retains the antihalation advantages. However, as a negative it has less speed than when it is used as a reversal film: E.I. 125 instead of 200 for Daylight, 100 instead of 160 for Tungsten.

Allow us to coin an old saying: Build a better light trap (i.e. film) and cinematographers will beat a pathway to your door. It has certainly been borne out with your response to new EASTMAN TRI-X Reversal Film. Demand for the product (pre-striped and non-striped alike) proves that the film solves a major problem for you, and we're pleased you're catching on to it so fast.

Shot on previous TRI-X Reversal Film



Shot on improved TRI-X Reversal Film

EASTMAN KODAK COMPANY
Rochester, N. Y.

ATLANTA: 5315 Peachtree Industrial Blvd., Chamblee, Ga. 30005, 404—GL 7-5211; CHICAGO: 130 E. Randolph Dr., 60601, 312—236-7234; DALLAS: 6300 Cedar Springs Rd., 75235,214—FL 1-3221; HOLLYWOOD: 6677 Santa Monica Blvd., 90038, 213—464-6131; NEW YORK: 200 Park Avenue, 10017, 212—MU 7-7080

tography, Smithsonian Institution, Washington, D.C. The procedure involves bombarding a photograph — which may be so faded that the image is invisible — with neutrons. The neutrons convert the minute particles of metallic silver composing the image into radioactive isotopes. A sheet of x-ray film is then placed in contact with the irradiated photograph and the developed x-ray image is a restored copy of the original photograph. The process works equally well with faded negatives. The technique was developed to restore early negatives and prints without endangering the fragile originals. The restoration experiments were conducted on the work of W. H. F. Talbot, a 19th century pioneer in photography. The technique is not being used for routine restoration work because it requires the use of one of the few available nuclear reactors.

A series of 12 educational films on molecular biology is being produced under the auspices of the Council of Europe, it was announced by Film Producers Guild, Ltd., Guild House, Upper St. Martins Lane, London, W.C. 2, England. The first two films in the series have been completed. Both films deal with the chemistry of the cell. One film illustrates the structure of proteins and nucleic acids, the other deals with the function of DNA and RNA in protein synthesis. Both films were produced by Technical and Scientific Films Ltd. in association with Film Producers Guild, the Educational Foundation for Visual Aids and the Scottish Films Council for the Council of Europe.

Winner of first prize in the Educational Industrial Film category of the International Film & Television Festival of New York is *Parable*, produced by Fred A. Niles Communications Centers, Inc., of Chicago. The New York Festival is conducted by Industrial Exhibitions, Inc., of New York, which selects for showing outstanding works in industrial films and filmstrips, television commercials and public service television programs. Both foreign and domestic films and commercials are entered in the competition.

Parable was produced for the Protestant Council of the City of New York and was shown at the New York World's Fair.

Professional Photography's Hall of Fame, core of the new headquarters building of Professional Photographers of America (PP of A) located in Des Plaines, Ill., will be dedicated in August 1966, during the PP of A's 75th Anniversary Convention. Highlighting the occasion will be the honoring of three 19th century photographic pioneers, Joseph Niepce, Louis Daguerre and William Fox Talbot. The Hall of Fame will be operated under the auspices of the nonprofit Photographic Arts and Sciences Foundation, chartered in October by the State of Illinois for the encouragement of educational and scientific activities in the art and science of photography. It will be established and maintained by contributions of photographic manufacturers and suppliers and will represent all branches of photography.

The three initial honorees were unanimously elected by the Foundation's Board of Trustees under Foundation bylaws which provide that selection must be made solely on the basis of individual merit and contribution to the profession of photography and that all such honors must be made posthumously.

An exhibit especially planned for elementary and high school students, as well as adults, will be shown by Eastman Kodak Co. at the Chicago Museum of Science and Industry beginning next spring. Many of the displays, such as the "time machine" section are arranged so that they can be operated manually by the viewer. In this section a viewer-operated console selects historical events preserved on film. Displays will include an aerial panorama showing a mosaic of part of Chicago; a "time-modifier" to show how photography can slow down high-speed action and accelerate slow action, and a "whirling disc" section to demonstrate the phenomenon of the persistence of vision and its application as the basic concept of motion pictures.

A Summary of Engineering Research 1965 (University of Illinois Bulletin, Vol. 63, No. 37, Nov. 1, 1965) is available upon request from Engineering Publications, 112 Civil Engineering Hall, University of Illinois, Urbana, Ill. 61803. The 1965 Summary (248 pp.) is the eighth in an annual series. This edition presents the engineering research picture at the University of Illinois as of June 30, 1965. It is meant to be a general guide to the research program. Each listing of a research project gives the project title, names of investigators, a brief description of the work being done, and a list of publications and theses that have resulted from the research during the past year. Projects are being carried on in many fields of engineering, including aeronautical and astronautical engineering, computer science, electrical engineering and other fields. The University also maintains a Coordinated Science Laboratory which is an interdisciplinary laboratory in the College of Engineering devoted to a broad program of research in pure and applied science.

Important Russian and Japanese journals in the fields of electronics, applied physics and related engineering disciplines are available in English from the Institute of Electrical and Electronics Engineers (IEEE), 275 Madison Ave., New York, N.Y. 10016. Presently available in English are Russian journals *Radio Engineering and Electronic Physics* (12 issues per annum, $75); *Telecommunications and Radio Engineering* (12 issues per annum, $75); and *Engineering Cybernetics* (6 issues per annum, $40) and Japanese journals *Electronics and Communications in Japan* (12 issues per annum, $50); and *Electrical Engineering in Japan* (12 issues per annum, $50).

Educational Facilities Laboratory (EFL) is the recipient of a five-year grant of $10 million from the Ford Foundation to expand a national program to stimulate new ideas for better and more economical school and college buildings. EFL, an independent nonprofit organization established by the Foundation in 1958, has pioneered such innovations as use of modular components in school construction, and of computers to determine both school space needs and the most efficient use of school facilities.

The Foundation also announced a grant of $2,719,500 for a five-year demonstration program of educational improvement by the New Orleans public schools in cooperation with Tulane and Dillard Universities; and an appropriation of $1,659,000 for continued support of Project Opportunity, sponsored by the Southern Association of Colleges and Schools, to identify and help deprived but academically promising young Negroes prepare for and obtain college educations.

The present grant brings total Ford Foundation support of EFL to $19.5 million since 1958.

A Coordinated Science Laboratory Building which will include a Space Science Research Center is under construction at the University of Illinois, Urbana, Ill. 61803. The total cost of the building will be about $2.8 million, of which $1,250,000 has been granted by NASA for construction of the Space Science Research Center. The Laboratory will administer as well as house the activities of the Center. Among subjects to be studied will be the moon's atmosphere and the theory of relativity in space.

Plans for construction of a motion-picture center with complete laboratory and producers services have been announced by Byron Motion Pictures, Inc., Washington, D.C. Site of the new center will be a newly acquired acre of land at North Capitol and K Streets close to the center of Washington. Plans for a 60,000 sq ft, 3-level, windowless building have been drawn and construction is expected to start in the spring.

Eastman Kodak Co. has announced construction of a multimillion dollar building at Kodak Park Works as part of an extensive building program (*Journal*, p. 698, Aug. 1965; p. 949, Oct. 1965). The new building, to be known as building 69, is planned to house the Photographic Technology Division. It will consist of five stories and a basement and will contain 230,000 sq ft of floor space. Initial occupancy is scheduled for early in 1967. This building will bring the total area of additional floor space under construction or completed in 1965 at Kodak Park Works to almost 1½ million sq ft.

Building No. 69 will house a laboratory complex especially designed for the study and development of photographic systems. All of the various activities of the division presently located in other areas of Kodak Park will be brought together in the new structure. The building will be of steel frame construction with an exterior of off-white panels made of precast concrete with exposed aggregate alternating with vertical strips of bronze-tinted solar glass. Dark-brown brick will be used as an accent material.

A new audio-visual demonstration center will be constructed by Cousino Electronics Corp., of Toledo, Ohio, as part of an expansion program expected to double the firm's facilities by the end of the year. The center will include a conference room with a seating capacity of 50. Special provisions will be

made for demonstrations of tape recorders and record players and a separate room will be arranged for demonstrating overhead projection techniques. The firm's film library and service department areas will also be expanded.

The 3M Company Wollensak plant, Rochester, N.Y., has become part of the Microfilm Products Div. of the 3M Company, St. Paul, it was recently announced. The Microfilm Products Div. manufactures equipment for microfilm systems and buys lenses and shutters for microfilm processor-cameras and reader-printers from Wollensak. Some 550 persons are employed at the Wollensak plant which manufactures high-speed cameras and related photographic components and systems for military and industrial use.

Eastman Kodak Co. and F. W. Hasselblad & Co. AB. of Sweden have signed a contract for the purchase by Kodak of the photographic distribution and processing business of the Swedish company known as Hasselblads Fotografiska AB. Completion of the transaction requires only formal approval by the Swedish government. The firm will become a wholly owned subsidiary of Kodak, and plans are to appoint David M. Kowalke as Manager. No changes are planned in the operating personnel. Victor Hasselblad, President of Hasselblads Fotografiska AB, will continue to manufacture the Hasselblad camera as a separate enterprise and not as a part of Kodak.

Orrtronics, Inc., manufacturer of continuous loop cartridge and playback systems, has moved its offices and plant from Opelika, Ala., to the Toledo, Ohio, area. The firm now occupies 44,000 sq ft in the Willis Day Industrial Park in Northwood (a Toledo suburb) with an option to expand into an additional 88,000 sq ft. In addition to tape recording equipments the firm manufactures an 8-track stereophonic auto tape player. The firm's research and development division, Cousino Electronics Corp., has been located in Toledo for some time.

The Western Office of S.O.S. Photo-Cine-Optics, Inc., has moved to new and larger quarters at 10635 Burbank Blvd., North Hollywood, Calif. Newly appointed Manager of the Western Branch is Herbert Huffman, who was formerly Sales Manager of Bach Auricon Co. His assistant is Claude C. Pitts.

The 2,500-mc TV system, produced by Micro-Link Systems unit of Varian Associates, 1375 Akron, Copiague, L.I., N.Y. 11726, which broadcasts at frequencies 10 times as high as commercial VHF television, has been installed at Houston, Texas, to provide a 24-school network. The 2,500 mc channels were allocated by the Federal Communications Commission in 1963 for educational use. The signal is limited to line-of-sight transmission and cannot be received by conventional TV sets. The system also consumes considerably less electric power than commercial television. Total cost for the Houston studio and transmitting equipment was reported as $70,000, and for each school's receiving antennas, signal converters, distribution circuits, and a total of 325 classroom monitors on wheeled dollies, an additional $142,000.

The first fixed-station grant for 2,500-mc Instructional Television (ITV) was issued by the FCC to Plainview-Old Bethpage School District on Long Island, which began transmission on March 1, 1964. At present the Micro-Link Systems of Varian is installing a 236-school, 2-channel ITV system for the Roman Catholic Diocese of Brooklyn, and a 52-school network for the Rochester, N.Y., City School District. The Houston network has been assigned the call letters KRZ-68 and is now broadcasting more than 10 hours daily.

New facilities have been established in Chicago by Victor Duncan, Inc., 250 Piquette Ave., Detroit, Mich. The new facility, located at 12 East Grand Ave., Chicago, Ill. 60611, includes repair services and a rental department, headed by Frank Marasco. Equipments for rent include Arriflex, Bell & Howell, Eclair, Mitchell and other cameras and accessories. A rental price list is available upon request from the Chicago address.

Lipsner-Smith Corp., owner of 50% of Eastern Effects, Inc., 333 W. 52 St., New York, N.Y. 10019, has acquired the remaining 50% of the stock from Maurice Levy and is now sole owner, according to a recent announcement. Operating personnel will remain unchanged, the announcement stated. New Vice-Presidents are: Rodney Friedson, General Manager; Lester Price, Production; and Ed Berger, Quality Control. Jerry Lipsner continues as Executive Vice-President and Sales Manager. While Mr. Levy is no longer connected with Eastern Effects, he will be available as a special consultant. It was also announced that the new EMMEL camera would become available on a lease basis.

Edgerton Germeshausen & Grier, Inc., Boston, Mass., has appointed Photo-Electro Instrumentation Co., 139–15 Coolidge Ave., Jamaica, N.Y., to represent Extended Range (XR) film in the New England States, New York, Pennsylvania, Maryland, Delaware, Virginia and the District of Columbia. XR film is a multilayer film for scientific and industrial photography and is designed for use over an extreme range of light conditions (*Journal*, p. 765, Sept. 1963).

Graflex, Inc., a subsidiary of General Precision Equipment Corp., Rochester, N.Y. 14603, has acquired the business and assets of Dorn Optical Co., Inc., Webster, N.Y. A new subsidiary of Graflex, known as Dorn Optics Corp., will carry on the existing Dorn Optical Co. business. L. J. Dorn, founder and president of Dorn Optical Co., will continue as President of the new organization. Robert L. Rice is President of Graflex. No immediate changes in operation are expected.

Traid Corp., Glendale, Calif., has announced establishment of a sales office for the southeastern portion of the United States and relocation of its northeastern office. E. H. Neener is head of the southeastern office, located at 1207 Banana River Dr., Indian Harbour Beach, Fla. Mr. Neener was formerly a photographic officer with the U.S. Army Signal Corps, Redstone Arsenal, Huntsville, Ala. Head of the northeastern office, now located at 1608 Forest Glen Rd., Silver Spring, Md., is Vince Koenig.

Fuji Photo Film Co. of Japan has announced the organization of an American subsidiary for the sale and distribution of its professional motion-picture film in the United States. The firm is located in the Empire State Building, 350 Fifth Ave., New York. Manager of the new firm is Elias J. Drexler. He was formerly Manager of the Professional Motion Picture Dept. of the Agfa-Gevaert Co.

Two-color pictures (red and blue), produced by lensless photography (hologram), have been achieved at Bell Telephone Laboratories by use of two different lasers as the source of the coherent light required to make a hologram. Although holograms with black and a single color have been made before, it is believed that the Bell Telephone Laboratory experiments are the first to have resulted in a two-color picture from a hologram. A hologram is a record of the pattern of light waves reflected from an object as that pattern exists on a plane in space at a particular moment. The hologram records not only the brightness at each point on the object, but all the information that can be conveyed by light scattered and reflected from the object. Although the hologram looks like a mass of gray swirling lines, it can reproduce an image of the original object, if the plate is illuminated with a beam.

To produce the two-color pictures a red light from a helium-neon laser and a blue light from an argon laser are combined into a single beam of bluish-pink. The beam is split into two parts. One part is scattered directly from the object or color transparency onto a photographic plate; the other part is reflected from a mirror to the same photographic plate. The two beams striking the plate form interference patterns throughout the emulsion. When the original red and blue beams are shown on the completed holograms, a single, two-color image emerges.

An electronic device to allow "speed hearing" of recorded speech at word rates comparable to speed reading has been developed by Bell Telephone Laboratories. Designs for the device, called the harmonic compressor, have been given to the American Foundation for the Blind for possible use in making recordings for the blind. The device permits making recordings of the human voice which can be played at twice their normal speed while retaining normal voice pitch. The harmonic compressor divides in half the frequency components (harmonics) in a voice recording while preserving the original time duration. By doubling the speed of the half-frequency recording, the frequency components are restored to their original values. The result is a normal-pitch, double-speed recording.

Jacques D. Van Vlack has been selected as one of four American scientists to partici-

pate in the Science Film Forums to be held in India. The American Science Film Association is presenting a series of outstanding scientific films in the cities of Madras, Bangalore, Bombay, Calcutta, New Delhi and Lucknow with a related scientific discussion by one or more of the participating American scientists as a visual bridge between the scientists of America and the scientists of India.

Mr. Van Vlack is attached to the Temple Research Division of Eastern Pennsylvania Psychiatric Institute as a motion-picture technologist for an interdisciplinary research project into human communications. The project is directed by Raymond L. Birdwhistell and Albert E. Scheflen. Dr. Birdwhistell is the well known authority on the dynamics of body motion and Dr. Scheflen is known for his research in the fields of psychology and psychoanalysis. Margaret Mead is advisor to the project in the area of anthropology.

Author of several papers on research cinematography, Mr. Van Vlack presented a paper on "Research Documents for Psychotherapy" at the Society's 94th Technical Conference in Boston. Before joining the research project in 1960, Mr. Van Vlack was Production Supervisor of the Audio Visual Center of the University of Buffalo (New York).

Raymond Fielding has announced his resignation from the motion-picture faculty at the University of California, Los Angeles to take a position with the University of Iowa. Dr. Fielding is the author of numerous books and articles on film, including *The Technique of Special Effects Cinematography* and *A Technological History of Motion Pictures and Television.* He is a member of the Board of Directors of the University Film Producers Association and is a Consultant on educational film production to the National Aeronautics and Space Administration. Dr. Fielding has been with UCLA since 1957. At the University of Iowa he will teach courses in film history, production and technology, and will supervise the University's film research program.

Val R. Pieronek has been appointed an Assistant Director of the Photographic Technology Div., Kodak Park Works, Eastman Kodak Co. Dr. Pieronek joined the Photographic Technology Div. in 1946 as a chemist concerned with development work on color photographic products. In 1954 he began a one-year assigment in New York City in the East Coast office of Kodak's Motion Picture and Education Markets Div. Returning to the Photographic Technology Div. the following year, he was named a section supervisor of photo finisher operations. In 1963 he was appointed Kodak Park Coordinator for the Kodak Exhibit at the New York World's Fair.

Paul V. Connelly has been appointed Sales Manager, Professional Cine Products, Agfa-Gevaert, Inc., 275 North St., Teterboro, N.J. 07608. For the past 11 years Mr. Connelly has been Vice-President of Pathe Industries, N.Y. From 1959 he has also served as Executive Vice-President and Director of Pathe Laboratories, Inc., of New York; President and Director of Pathe-Deluxe of Canada. Ltd.; and President and Director of Pathe Sound Services, Inc.

Bernard D. Loughlin is recipient of the Modern Pioneer Scroll Award presented by the National Association of Manufacturers for his "outstanding contributions to the theory, understanding and practice of color television." Mr. Loughlin, who is Executive Vice-President of Hazeltine Corp.'s Research Division at Plainview, L.I., is the inventor of the constant luminance and shunted monochrome systems of transmission of the color content of a television signal, which form the basis of the present color television signal. He holds some 87 U.S. patents on various features of color TV and other electronic subjects. Other honors accorded Mr. Loughlin include the David Sarnoff Gold Medal Award presented by the SMPTE and the Zworykin Television Prize awarded by the (then) IRE.

Obituaries

Peter Stuart Ferguson

Peter Stuart Ferguson died June 10, 1965, in Eastwood, N. S. W., Australia, as the result of injuries sustained in an automobile accident. At the time of his death he was 25 years of age. He was employed as Producer-Director by Eastwood Motion Picture Studios, producers of 16mm films. Prior to his association with the Eastwood studios, he had had considerable experience in film and television production and had prepared for a career in motion pictures and television by engaging in studies on telecommunications and television and motion-picture techniques. He had also been employed as a technician in the Postmaster General's Department in Sydney.

Apart from his skill and knowledge of the mechanical and electronic aids to the production of a finished film, he had studied all aspects of casting, stagecraft, production and editing, and he had a small but complete studio in the final stages of construction.

At the time of his death he had been a member of the Society for about one year. Information about his death was received in a letter from his father, Bertram H. Ferguson, which contained the statement, "He was very proud to have been elected to membership in (the Society) . . . his mother and I are glad of the pleasure which he derived from it during the last year."

Allen B. Du Mont

Allen B. Du Mont died November 15, 1965, at the age of 64. One of the outstanding pioneers of television, perhaps his best known contribution is his development, in the 1930s, of a cathode-ray tube that could be manufactured relatively inexpensively and that had a life expectancy of about a thousand hours, in contrast to the early cathode-ray tubes that had a life expectancy of only 25 or 30 hours.

Dr. Du Mont was graduated from Rensselaer Polytechnic Institute in Troy, N.Y., in 1924 with a degree in electrical engineering. He began his career with the Westinghouse Lamp Co., later a division of Westinghouse Electric Corp. Four years later he left Westinghouse to join the De Forest Radio Co. as chief engineer where he first began working with television, using the whirling disc technique. He helped build the first television transmitter with simultaneous broadcast of sight and sound. In 1931, Dr. Du Mont, then a vice-president of the company, resigned to establish his own laboratory where he developed the cathode-ray tube. In 1938, he sold a half interest in his company to raise capital for broadcasting stations and shortly afterward acquired station WABD (now WNEW-TV) in New York, WTTG in Washington and WDTV in Pittsburgh.

In 1955, Du Mont Broadcasting was separated from Du Mont Laboratories and in 1960 the remaining Du Mont interests were acquired by Fairchild Camera and Instrument Corp. Dr. Du Mont became group general manager of the Du Mont divisions of Fairchild.

Among the many honors accorded Dr. Du Mont were honorary doctorates from Rensselaer Polytechnic Institute and Brooklyn Polytechnic Institute. A long-time member of the Society, he became a Fellow in 1949 and in January, 1965, he was made a Life Fellow.