

current literature



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 The Editors present for convenient reference a list of articles dealing with subjects cognate to motion-picture engineering published in a number of selected journals. Photostatic or microfilm copies of articles in magazines that are available may be obtained from The Library of Congress, Washington, D.C., or from the New York Public Library, New York, N.Y., at prevailing rates.

American Cinematographer vol. 39, Oct. 1958
 Animated Film Techniques. Pt. IV. (p. 626)
C. Fallberg
 Sound Tracks for 16mm Animated Films (p. 629)
S. W. Jones
 Lens-Coupled Exposure Meters—Next for Professional Cameras? (p. 630) *E. Wildt*

Bild und Ton vol. 11, Oct. 1958
 Die elektronische Filmaufnahme (p. 255) *E. Kroschke und W. Günther*
 Eine neue Filmentwicklungsmaschine (p. 261)
K. Speilhagen

British Kinematography vol. 33, Sept. 1958
 A Single System 16mm Camera with Magnetic Recording (p. 63) *L. H. Bacon*
 Pre-striped 16mm Film (p. 71) *R. J. T. Brown*
 vol. 33, Oct. 1958
 Some Problems in Television Lighting (p. 91)
W. C. Pafford

A Revolutionary Light Source and a Modern Projector (p. 99) *R. H. Cricks*
 Apparatus for Measuring Image Unsteadiness in Motion Picture Cameras (p. 102) *L. J. Wheeler*

International Projectionist vol. 33, Oct. 1958
 Image Contrast and Picture Quality (p. 5) *R. A. Mitchell*
 The Geneva Intermittent Movement: Its Construction and Action (p. 8) *A. C. Schroeder*
 Movies of the Future: Projection at the Brussels World's Fair (p. 11) *A. Mosby*
 vol. 33, Nov. 1958
 Are Lenticulated Screens Practical? (p. 5) *R. A. Mitchell*
 Radically New Light Source Spurs New Projector Design (p. 8) *R. H. Cricks*

Kino-Technik vol. 12, Oct. 1958
 Europas Beitrag zur Kinotechnik
 Deutschland: Moderne Technik in der Filmherstellung (p. 272) *E. Leistner*
 Wesentliche Verbesserungen in der Wiedergabetechnik (p. 278) *G. Hauffer*
 England: Aufnahme und Wiedergabe technisch vollendet (p. 280) *R. H. Cricks*
 Frankreich: Filmkunst und Filmindustrie mit hohem Niveau (p. 282)
 Italien: Technisch hochentwickelte Wiedergabegeräte (p. 285)
 Niederlande: Weltweite Verbreitung der Philips-Geräte (p. 286) *W. J. M. Jansen*
 Schweiz: Kinogerätebau mit Schweizer Präzision (p. 289)
 vol. 12, Nov. 1958
 Neues Musikaufnahme-Atelier bei der Ufa in Berlin (p. 338)
 Moderne Tontechnik bei der Mosaik-Film GmbH (p. 340)
 Europa-Tonstudio in der Filmstadt Prag-Barandov (p. 345) *E. Lieb*
 Studio- und Theatertechnik auf der "Photokina" (p. 350)

Proc. IEE 105, Pt. B, Nov. 1958
 A New Cathode-Ray Tube for Monochrome and Colour Television (p. 581) *D. Gabor*

Proc. IRE vol. 46, Nov. 1958
 Electronic Composites in Modern Television (p. 1798) *R. C. Kennedy and F. J. Gaskins*

Review of Scientific Instruments vol. 29, Nov. 1958
 High-Speed Multiple-Spark Light Source (p. 949) *M. R. Wilson and R. J. Hiemenz*

section reports



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The Atlanta Section meeting of May 21 held at the Architecture Auditorium, Georgia Institute of Technology, Atlanta, was the best attended of the spring. Fifty-six were present for the program which was devoted entirely to color. W. T. Hanson, Jr., Eastman Kodak Co., used dual projectors for a comparison of Commercial Kodachrome and Ektachrome Commercial. Original material, dupes, and negative/positive duplicates of each original were shown. The views of a service laboratory as regards the various color duplicating processes available were presented by W. D. Hedden, The Calvin Co. A sample reel presented at the Calvin Workshop in March was projected. Winding up the program, William H. Metzger, Ansco, presented a fine roll of scenes made in color on Super Anscochrome under existing light conditions, followed by a paper in nontechnical terms, easily understood by all present.—*Edward E. Burris*, Secretary-Treasurer, Motion Picture Unit, Lockheed Aircraft, Marietta, Ga.

The Canadian Section reached a milestone in its growth with its May 24th meeting at Queen's University, Kingston, Ont., when approximately 60 members from Toronto, Ottawa, Montreal and other Canadian points met for a one day color conference. Several members from the Rochester Section were also in attendance. The afternoon was planned to provide something of interest and value for all the members, no matter what segment of the motion picture and TV industry they represented.

Ralph Evans, Eastman Kodak Co., Rochester, spoke on "Seeing Light in Color," discussing the subject from a psycho-physical viewpoint. Among other things, Mr. Evans pointed out that identical colors or hues seen under one condition could be completely different when seen under other conditions. For those mainly interested in color film, the organizing committee selected Lloyd C. Thompson of The Calvin Company, Kansas City, Mo., who spoke on the subject of "Pros and Cons of 16mm Color Film Techniques." Some of the problems leading up to what the company considers the "ideal" way to deliver a finished product, originally shot on Eastman Commercial Kodachrome, to the client were discussed by Mr. Thompson.

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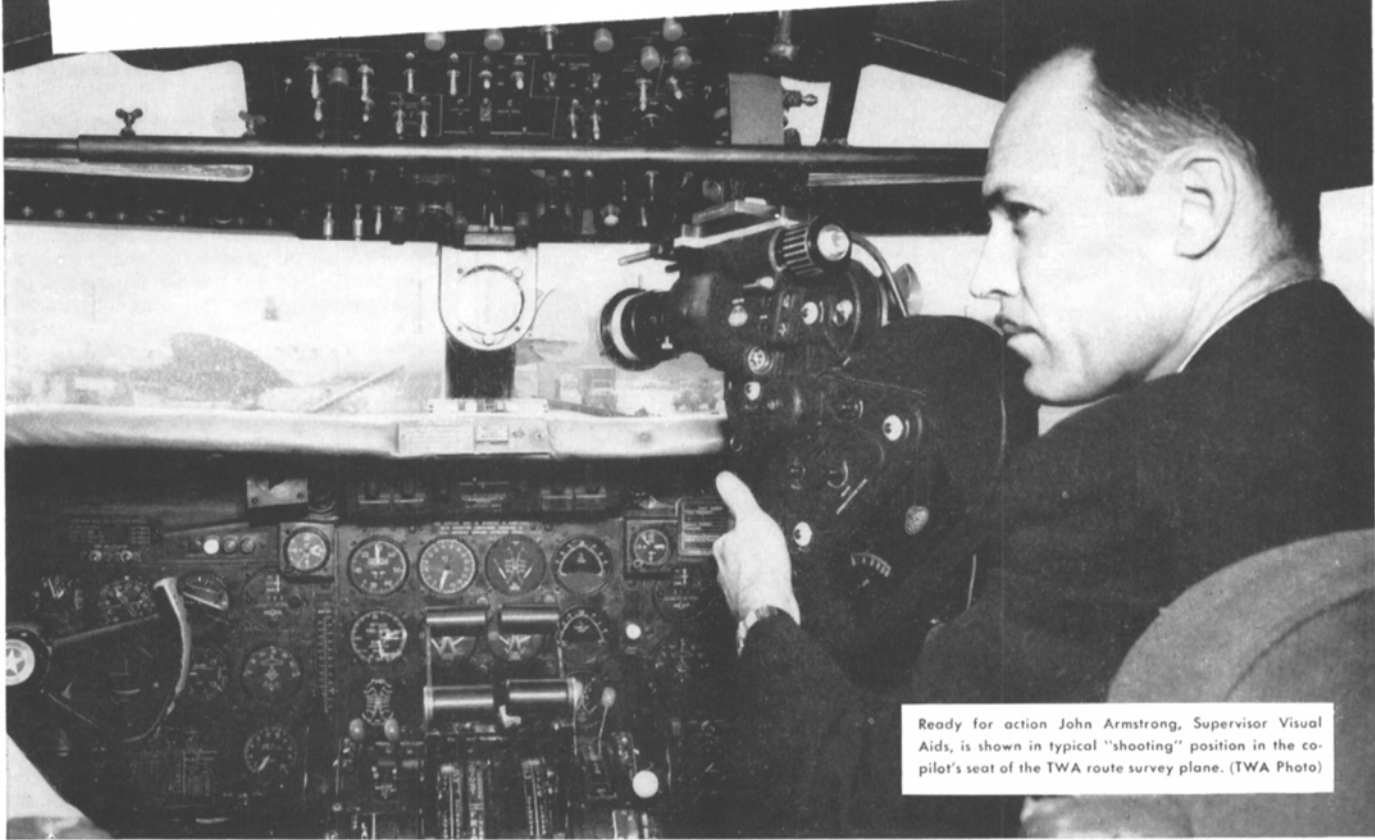
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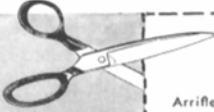
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Following this discussion, a demonstration print showing six different end products was shown. These were, in order of their appearance, a Kodak 5269 color print from original Kodachrome, a Kodak 5269 print from a color dupe, an Eastman color positive print from Eastman internegative material, a reversal black-and-white print from the original, a standard theatrical quality release print from a duplicate negative made from the color original and a television quality print from the same dupe negative.

For the television people, John W. Wentworth of the Radio Corp. of America spoke on "Color Television." Mr. Wentworth spoke "electronically" as he described

the operations of the present day compatible color television system.

After the meeting, many of the members and their wives attended a "Dutch Treat" cocktail party in the Burgundy Room of the Hotel LaSalle and a dinner and dance which closed the day's events, which many acclaimed the most memorable in the history of the Canadian Section.—*R. E. Ringler*, Secretary-Treasurer, c/o DuPont Co. of Canada, Ltd., Toronto, Ont.

The Chicago Section's meeting of May 16 constituted another highly successful regional affair, attracting over 200 members and guests from Detroit, St. Paul, Kansas City and Colorado Springs, as well as the

local Chicago area. Afternoon and evening sessions were held at the Furniture Club of America, Furniture Mart, Chicago.

The program opened with Richard O. Painter, Asst. Dept. Head, Experimental Engineering, General Motors Corp., speaking on high-speed photography applied to automotive research engineering. A description of an automatic shutter for motion-picture printing machines was given by Theodore W. Batterman, Electronic Systems, Inc. Then Robert W. Wagner, Director of Motion Picture Production, Ohio State Univ., reported on the status of 16mm film production in universities and colleges. Following this, a direct-drive automatic iris control was described by Mervin W. La Rue, Jr., Bell & Howell Co., Chicago. Next, a team from Eastman Kodak Co., N. H. Groet and Herbert L. Rees, described an improved professional 16mm reversal color camera film and its processing. Documentary film techniques of the U.S. Air Force were outlined by Capt. Robert Sonnett, Chicago, and color films illustrating the Air Force guided missile launching and precision jet flying teams were shown. Lloyd Thompson of The Calvin Co., Kansas City, Mo., capped the day with a fascinating wide-screen color slide showing and personal narrative describing his trip through Russia.

The afternoon session was followed by a cocktail party for the dinner guests, hosted by the film industries in the Chicago area. As an innovation the evening program was planned with the members' wives in mind and the women turned out forty strong for the latter session. Special thanks were in order for Dick Hertel of Kling Studios, Program Chairman, for making all the program arrangements and converting the meeting room into a theatre by amassing the 3 16mm projectors, 35mm arc projector, 3½ × 4½, 2 × 2 and wide-screen slide projectors and CinemaScope screen necessary for the presentations.—*William H. Smith*, Secretary-Treasurer, Lakeside Lab, Box 2408, Gary 5, Ind.

The Chicago Section rounded out the first half of its activities for the year with a meeting on June 16 in Room 211 of the Prudential Plaza Building. Two papers presented by Chicago area members drew an attendance of 57 members and guests.

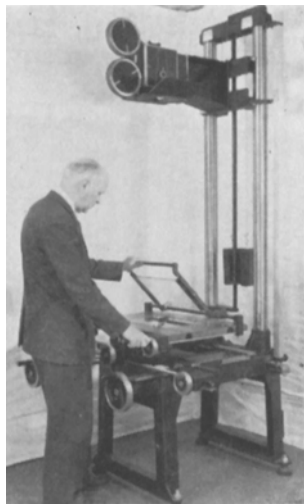
A joint discussion of film cleaning and handling by Richard Wallace and Howard Bowen of the Harwald Co. began the program. Included was a brief review of past techniques as well as a description of present and proposed methods. Noting the importance of efficient cleaning procedures to the industry, Mr. Wallace emphasized the growing need for multiple purpose materials which will protect and lubricate as well as clean films of all types. Color slides illustrated details of equipment designed to use such multiple purpose cleaners taking into account the cleaning action required, evaporation rate, toxicity, odor and other considerations.

The other paper, concerned with automatic mixing of soundtracks, was delivered by G. W. Kugel and Jack Sweeney of Dallas Jones Productions. Problems confronting the sound engineer in properly mixing a track were discussed after which a

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demonstration was made of an experimental mixer control designed to overcome some of these problems. In this equipment, multiple tapes are used and are cued in much the same way that motion-picture films are cued for release printing. A console panel consisting of selector switches can then be preset to provide automatic fading and dissolving. This control enables the sound engineer to concentrate on the primary problem of accurate sound-level control necessary for a good mix. A lively question and answer session followed these papers after which the meeting adjourned to a coffee and coke session.—*William H. Smith, Secretary-Treasurer, Lakeside Lab, Box 2408, Gary 5, Ind.*

The Dallas-Ft. Worth Section offered a tour of the new studio and laboratory facilities at the Jamieson Film Co. as its July 11 meeting. Approximately 75 members and guests accepted the invitation and were present to hear architect W. E. Benson discuss some of the problems encountered in studio design and construction. Following this, Hugh Jamieson described the sound recording facilities and Bruce Jamieson gave an interesting paper on an extremely low-volume tube-type continuous processing machine made entirely of plastic. The machine was developed by the Jamieson Film Co. In its operation, each strand of film is completely surrounded by a small oval-shaped polystyrene tube

filled with processing solution. The movement of the film through the tube pumps the solution through the machine. The design is of particular interest to color processing since the volume of costly solutions required is extremely small.—*E. J. Pattist, Secretary-Treasurer, 3618 Marsh Lane Pl., Dallas.*

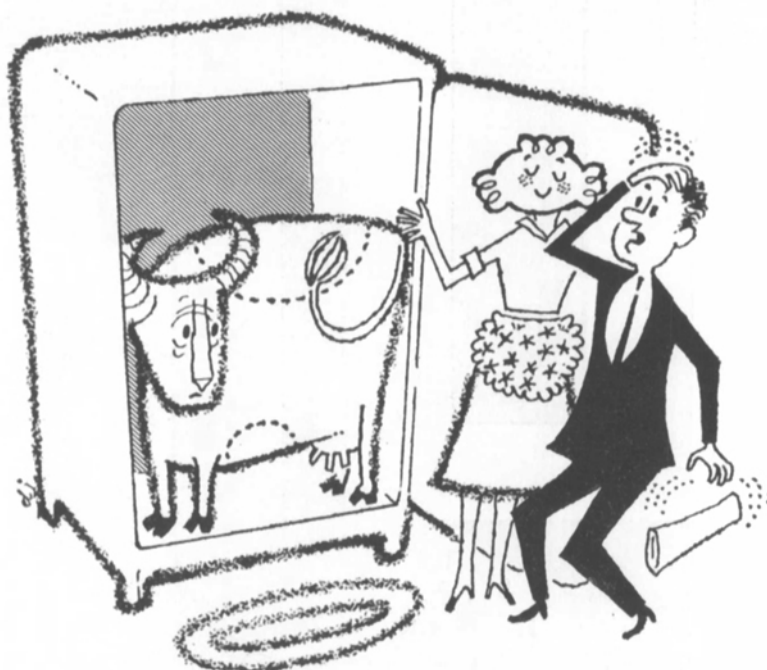
The Hollywood Section held a meeting May 20 at the American Broadcasting Co. in Hollywood. Sidney P. Solow, Consolidated Film Industries, repeated the paper he had given at the 83rd Convention, entitled "Economic Aspects of Television Film Production in Color," for those who had been unable to attend. The results of a survey of a number of black-and-white and color half-hour films made for release to television were reported on. The average cost increases in color production over black-and-white were related to such factors as lighting, set decorating, costuming, raw film and processing. Cost comparisons on various methods of arriving at release prints were also discussed.

For the second half of the program, Robert W. Cochran, General Electric Co., read a paper by Messrs. Gula-Shephard and Wiggan of the Technical Products Dept. of General Electric, Syracuse, N.Y., which had been delivered at the recent NAB Convention. This was a well illustrated talk which showed some of the innovations in this 3-image orthicon color camera which features smaller size; improved optical system; ease of alignment, operation and maintenance; and greater stability during long periods of operation.—*Robert G. Hufford, Secretary-Treasurer, Eastman Kodak Co., 6706 Santa Monica Blvd., Hollywood 38.*

The Hollywood Section meeting of June 17 was devoted to the use of color both in motion pictures and live television. The meeting was held at the National Broadcasting Company in Hollywood, approximately 170 being present.

Dr. Norwood L. Simmons, Eastman Kodak Co., presented a paper describing the use of false color-sensitized aerial color films for camouflage detection, and their peacetime civilian application for use in forestry work to distinguish between healthy green vegetation and that which has been cut or is diseased. Dr. Simmons' talk was illustrated by use of comparative slides in which the same subject matter was photographed on a conventional, properly color-sensitized aerial color film and on its false color-sensitized counterpart.

The use of color differentiation in the Chroma-Key process, as contrasted to the standard luminance matting used in black-and-white television, was discussed by Robert H. Pierce, NBC. This new process permits the foreground action to be placed in front of any background material desired, by simply performing the foreground action in front of a blue screen. The background action is supplied by a second color-television input which is keyed to feed the system whenever the primary camera, photographing the foreground action, is scanning the blue screen. This color matting process has been used extensively on the Dinah Shore program.—*Robert G. Hufford, Secretary-Treasurer,*



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The New York Section held its May meeting on Wednesday, the 21st, attracting 195 members and guests to hear two papers on a new 16mm color reversal film. The meeting took place at the World Affairs Center Auditorium in the Carnegie Endowment International Center.

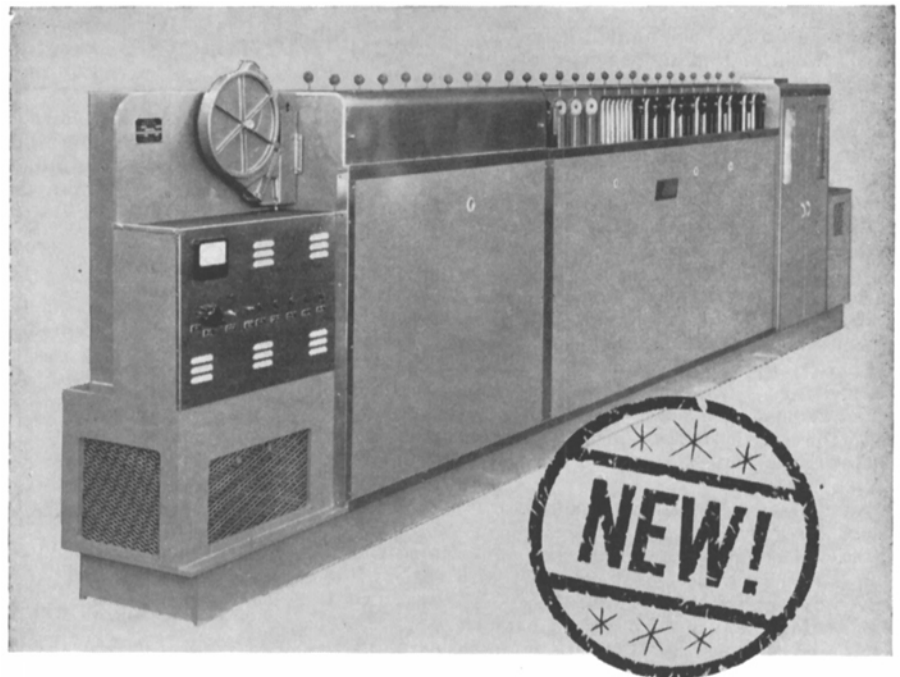
Forrest A. Richey read a paper entitled "An Improved Professional 16mm Reversal Film" which he co-authored with N. H. Groet and M. M. Liberman of the Kodak Research Laboratories, Rochester, N.Y. The paper described a new subtractive reversal color film which is designated as Ektachrome Commercial Film Type 7255 (16mm). This film is designed to provide high quality originals for the production of release prints. The film structure, sensitometric characteristics, exposure requirements, suggested filters and printing behavior of the film were covered.

Herbert L. Rees of the Color Technology Div. of Eastman Kodak Co. followed with a companion paper on "The Processing of an Improved Professional 16mm Reversal Color Camera Film" on which he collaborated with Deane S. Thomas, Jr., and Howard W. Vogt, also of Eastman Kodak Co. The paper covered the processing of Ektachrome Commercial Film Type 7255 in the process designated as ECO-1. Tank and replenisher formulas, important control factors, processing equipment and necessary precautions for successful processing were discussed.

It was reported that the Eastman Kodak Co. will process this film on the same facilities now used for Kodachrome Commercial Film Type 5268 which the new film is designed to replace. Ektachrome Commercial Film may also be processed by the user. The two papers were followed by a side-by-side demonstration of the new film and of Kodachrome Commercial Film, so that the audience had a chance to compare the quality of the new and the old. Coffee, coke and donuts were served through the courtesy of the Westrex Corp. in a social half-hour following the presentation of the two papers, a feature of the New York Section meetings that is becoming increasingly popular with the membership. A very interesting discussion of the papers with a question and answer session followed the social break. The Board of Managers and the Speakers met for dinner at Mannie Wolf's Chop House before the meeting.—*Robert M. Fraser*, Secretary-Treasurer, c/o Itek Corp., 700 Commonwealth Ave., Boston 15, Mass.

The Rochester Section devoted its June 12 meeting to hearing a general description of General Electric Company's Industrial Photographic Section. The attendance of 25 heard C. H. Ely, C. D. Gerber, W. F. Purtell and B. T. Holtman speak on the industrial photographic section of the General Electric Heavy Military Dept. Two films illustrating military progress reports were shown.—*R. E. Putman*, Secretary-Treasurer, 420 E. Corey Rd., Syracuse, N.Y.

The San Francisco Section met on May 13, with 35 members and guests present, at



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the Cine-Chrome Laboratories, Palo Alto, to hear Burton Smith, Manager of the Laboratories, speak on Anscochrome films and their processing. Mr. Smith reviewed the processing done in the labs on the film for industrial and military projects, a great deal of which is classified work. A cameraman from Lockheed Aircraft Corp., Missiles Div., was present to show and demonstrate the Fastax Camera, in which Super Anscochrome is being used almost exclusively by Lockheed for high-speed photography in full color. Following the demonstration, a series of 16mm films were run, showing examples of various Eastman and Anso color films, giving the members and guests the opportunity to make direct comparisons of the relative characteristics of the various color films now on the market.

After a brief discussion period, during which a representative of Anso was present to answer questions concerning his company's products, coffee and doughnuts were served by Mr. and Mrs. Smith. Preceding the meeting, many of the members met for cocktails and dinner at Hal's Restaurant in Palo Alto.—*Rodger L. Woodruff*, Secretary-Treasurer, KRON-TV, 929 Mission St., San Francisco.

The San Francisco Section had a first hand look at the Ampex Color Videotape Recorder at its June 10 meeting. Following cocktails and dinner at Ramor Oaks in Atherton, the Section, represented by an attendance of 80, met in the Demonstration Room at the Ampex Corp. in Redwood City to hear Project Leader of the Color VTR Group, Joseph Roizen, describe the company's new Color Videotape Recorder. First the obstacles to be overcome were outlined and the several different approaches that had been tried. The greatest problem is that of phase stability which must be some fifty times as great for color as that required for monochrome. The method currently being used at Ampex is to demodulate the reproduced color signal by use of a regenerated reference subcarrier which has essentially the same phase error as the reproduced chrominance signal. The I and Q signals thus obtained are then re-encoded to form a stable output signal. This method results in very acceptable reproduction provided that the tape is played back with the same head used in recording, and before any appreciable additional head wear has occurred. This limitation does not affect the machine's usefulness in the normal type of network time-zone delay operations. Following Mr. Roizen's talk and a brief discussion period, the members were shown some excellent color reproductions in a demonstration of the machine.—*Rodger L. Woodruff*, Secretary-Treasurer, KRON-TV, 929 Mission St., San Francisco.

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New Members

The next *Directory for Members* is planned for April 1960. The following members have been added to the Society's rolls since the list published in September 1958. Also listed are those regretfully reported as deceased since that date. The designations of grades are the same as those used in the *Directory*. An up-to-date list of the Sustaining Members appears on the outside back cover of each month's *Journal*.

Fellow (F)	Active (M)	Associate (A)	Student (S)
<i>Deceased</i>			
<i>Werner George Alexewicz</i>	<i>Merriman H. Holtz</i>	<i>William Ratheke</i>	
<i>John W. Butler</i>	<i>Raymond A. Lindsay</i>	<i>Milton C. Scott, Jr.</i>	
<i>Leo A. Daniels</i>	<i>Don MacKenzie</i>	<i>Stephen Szeglin</i>	
<i>Edgar Gretener</i>	<i>Richard H. Newmayer</i>	<i>Arnold Williams</i>	
<i>Arthur J. Holm</i>	<i>Harold A. Pendreigh</i>		
Alexander, Henry D. , Photo., U. S. Navy. Mail: 5217 Clemson St., Ventura, Calif. (A)			
Alexander, Richard L. , Univ. S. Calif. Mail: 15041 Palm Ave., La Puente, Calif. (S)			
Armstrong, Donald G. , Production Asst., Victor Kayfetz Productions. Mail: 64-29 Woodbine St., Brooklyn 27, N. Y. (A)			
Auel, Carl J. , Sound Eng., Valley Forge Films Inc. Mail: % Shelton College, Ringwood, N. J. (A)			
Avril, Charles , Film Techn., Moviellab Film Labs. Mail: 36 E. Skyline Dr., Waneque, N. J. (A)			
Avrutis, Newton , Sound Recording Techn., IATSE. Mail: 160 W. 225 St., New York 63. (A)			
Balzarini, Frank J. , Projectionist, Elliot Unger & Elliot. Mail: 1618 71st St., Brooklyn 4, N. Y. (A)			
Barber, Joseph L. , Mot.-Pic. Lab. Techn., Pathe Labs. Mail: 955 Sherman Ave., New York 56. (A)			
Bart, Jacques , Film Editor, Dynamic Films, Inc. Mail: 652 W. 163 St., New York 32. (A)			
Battaly, Eugene D. , TV Workshop. Mail: 136 Main St., Irvington, N. Y. (S)			
Beech, Roland V. , Chief, Color Branch, Wright-Patterson A.F.B. Mail: 1863 Kipling Dr., Dayton 6, O. (M)			
Bittle, Phillip V., Sr. , Portrait Photo., Rembrandt Studios. Mail: 1325 Baugh Ave., East St. Louis, Ill. (A)			
Blair, Robert F. , Labcraft International Corp. Mail: 4019 Prospect Ave., Cleveland 3. (A)			
Blair, Vachel L. , Free-Lance Cameraman, 90 La Salle St. (9D), New York 27. (A)			
Boehme, William F. , TV Eng., 234 Stadium Bldg., University of Florida, Gainesville, Fla. (A)			
Boesch, Eugene, Jr. , Free-Lance Asst. Cameraman, 3147 Country Club Rd., New York 65. (A)			
Bradcock, John A. , Free-Lance Asst. Cameraman, 56 W. 103 Pl., Chicago 28. (M)			
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