

The Association of Cinema and Video Laboratories

A Report on the Fall Meeting in New York

By LYNN BIGBEE

THE ACVL held its annual meeting at the Americana Hotel in New York on 16 October 1976, with Frank M. McGeary, President of Motion Picture Laboratories, Inc. and also ACVL President, presiding at the Laboratory membership meeting. Mr. McGeary expressed his appreciation to Executive Secretary Preston Bergin for his "untiring efforts in behalf of ACVL" and to Robert M. Smith, Executive Vice President of Du Art Film Laboratories, Inc., ACVL Vice President and 1976 Program Chairman.

"Bob Smith is always ready to work for ACVL," Mr. McGeary said, "and he has done a lot to bring us to the place we are today. We hate to lose him from ACVL, but he has been elected Executive Vice President of SMPTE. We realize that the time involved makes it impossible for him to serve in an official capacity for both organizations."

Mr. McGeary announced the following members as Association officers for 1977: William H. Smith, President of Allied Film Laboratory, Inc. as ACVL President; Irwin W. Young, Chairman of the Board, Du Art Film Laboratories, Inc. as Vice President; Robert T. Kreiman, President, DeLuxe General, Inc. as Treasurer; John Newell, President, Western Cine Service, as Secretary; and Preston Bergin as Executive Secretary. Mr. McGeary told the members that legal briefs provided by ACVL were instrumental in obtaining a high court reversal of the Post Tape Associates vs. Eastman Kodak Case. He announced that the Association Handbook was being revised and would be ready for distribution late in 1977.

Following the laboratory membership meeting, Robert M. Smith, Program Chairman, presided over the meeting of the lab members, associate members and guests. He introduced Frank McGeary, who extended a warm welcome to representatives from England, France, Germany, Italy, the Philippines, and Japan as well as Canada and Mexico. "I hope we can continue to work together on an international basis to solve our common problems," he said. "We want to see ACVL become more active worldwide while continuing to campaign effectively against the in-house production and lab work done by government agencies."

At the ACVL Luncheon, Robert M. Smith presented a first-time special appreciation award to Frank McGeary on behalf of the membership for his "dedi-

cated and inspiring leadership as President of the Association in 1974, 1975 and 1976." Mr. McGeary received a standing ovation from those attending.

Brief descriptions of papers presented at the Laboratory Equipment and Techniques Forum are given below.

Trade Test Reports on ECN-II

John M. Waner, Director, Sensitized and Chemical Productions Program, Motion Picture & Audiovisual Markets Division, Eastman Kodak Company, Rochester, NY 14650.

After the release of 5247-7247 Eastman Color Negative, Kodak began research into an improved product known as ECN-II. The object was to lower contrast and provide greater versatility while maintaining the quality of 5247-7247. One year after the introduction of the first 5247, the improved film was evaluated by Eastman Kodak and, in February 1976, limited 35mm trade tests began. Since this time, over two million feet (600,000 m) have been shot by television, theatrical and television commercial producers. Television programs produced with ECN-II include *MASH, Laverne and Shirley, ABC Movie of the Week*, and others. Theatricals produced on the new negative include *Peter's Dragon, The Cart, The Heretic, and Airport 1977*. The films and television spots produced on the new film cover a wide range of lighting techniques and processing by many West Coast laboratories.

Mr. Waner stated that Kodak feels that the new film has achieved the following improvements: increased shadow detail, greater latitude, more natural colors, easier timing, increased printing tolerances and some money savings for producers.

Sample prints in 35mm were screened as part of the presentation.

Customer Relations: Trick or Treat?

Panel Discussion. Moderator: *Norman Thelen, Director, Technical Operations, Encyclopaedia Britannica*. Panelists: *Gene Feldman, Wombat Productions; Paul Foster, Xerox Films; Irving Oshman, Vision Associates; Denis de Pierro, McGraw-Hill Films.*

The panel spoke informally and candidly about the problems that they, as customers, have had with laboratories. Comments follow: (1) Recheck your film inspection methods. (2) Make your expeditors more available. (3) Watch out for your "quaint technological double-talk." Terms differ from lab to lab. Don't assume that we know what you're talking about. (4) Coding of release prints to facilitate ordering film sections is a coming thing but, at the present time, no member of the panel has had many requests from customers for print coding. (5) The education film market is still down and the panel indicated that their customers are taking advantage of a buyer's market by making greater demands on distributors. (6) Give us some standards that the ACVL can live with on things like color guarantees, splices in prints and the number of times a negative can be printed.

The question and answer period that followed

the first discussions seemed to show that ACVL and panel members are both anxious for better communication. As one panel member said: "Tell it like it is!"

Status Report on Video News Film (VNF 7239-7240)

Robert A. Steelnack, Coordinator, Sales Development, Television Markets, Motion Picture & Audiovisual Markets Division, Eastman Kodak Company, Rochester, N.Y. 14650.

In September 1975, Video News Film (VNF-1) was first introduced. VND 7239, Daylight, was introduced in 1976. VNF has the same exposure index and filtration requirement as EF 7242. VND has the same E.I. and filtration requirement as EF 7241. The print film, 7399, is now being trade tested and should be available in December 1976 or January 1977. Trade tests show that the new print film is low contrast, and it has been suggested that it may be used as an alternate to ECO (7252) as a master printing stock.

Mr. Steelnack described the VNF-1 System as one that has eliminated the need for pre-hardener and neutralizer from development and has shortened the processing time of this color reversal film by 18%. It represents, he said, a 25 to 35% reduction in processing costs, depending on the film-to-leader ratio at the processing point. The elimination of the pre-hardener has cut down on the amount of dirt and the "bluc comets" which occur in the pre-hardener.

A large number of television stations, according to Mr. Steelnack, have converted to VNF and have indicated that the new process is more economical than the EF process. Many report using force-one-stop processing as their standard.

Screen comparison samples of the films were shown.

Silver Recovery from Photographic Wash Waters by Ion Exchange

David J. Degenkolb and Fred J. Scobey, DeLuxe General, Inc., Hollywood, Calif. Presented by Mr. Scobey, Senior Vice President at DeLuxe.

Photographic processing laboratories have profitably recovered silver since 1926 with the greatest percentage of recoverable silver found in the fixing bath. DeLuxe, in addition to re-



Frank McGeary receiving the first ACVL Special Appreciation Award, for his exceptional work as President of the organization from 1974 through 1976.

A contribution submitted on 25 October 1976 by Lynn Bigbee, Assistant to the President and Publications Editor, Motion Picture Laboratories, Inc., 781 South Main St., Memphis, TN 38101.



The Saturday morning Panel Discussion on Customer Relations. Left to right: Norman Thelen, Moderator, Denis de Pierro, Gene Feldman, and Irving Oshman.

covering 91% of available silver from the fixing baths, has instituted a system of recovering silver from the wash.

To recover silver from the wash water in a dilute state, they investigated the available alternatives: (1) electrolytic recovery; (2) metallic replacement; (3) precipitation; and (4) ion exchange. The first three proved not effective for their purposes. They settled upon a system involving ion exchange, a modification of the AkwaKlame system which had been successfully used in recovering silver in the mirror plating industry.

Due to practical considerations, only the water following the fixer tanks is treated. DeLuxe is also recovering the trace amount of silver remaining in the fixer after electrolytic stripping.

Mr. Scobey emphasized that the system used by his corporation to recover silver from the water is not intended as the primary technique of silver recovery but has been effective in recovering silver from the wash. "In a large laboratory," he said, "the AkwaKlame system is a financial success if the water following the fixer contains 3 ppm of silver or more."

Federal Procurement: How It's Working

John A. Battan, Director, Management Division, Federal Supplies Schedules, Office of Procurement, General Services Administration, Washington, D.C.

During the past twelve months, film work done by GSA contractors has increased dramatically, with 16mm color constituting two thirds of the work done. Most contracts are let in the large metropolitan areas with Washington, D.C., alone getting approximately \$1 million in work. Most of this is civilian rather than military spending.

The GSA contract, effective 1 September 1976, differs from previous contracts in the following ways: (1) Mandatory Agency use of approved contractors will be enlarged so that more work will be placed with GSA contractors. Mr. Battan expressed a wish that all Federal Agencies be required to use GSA contractors. (2) There will be more work with a required delivery time of 24 to 48 hours. (3) The government discount structure will be based on dollars in volume and length of films to be printed.

The agencies involved in the contract must go to GSA contractors, and it is illegal for them to require labs to bid against one another. Agencies are obliged to go to the lowest bidder with a few exceptions. According to Mr. Battan, the next solicitations, going out in March 1977, will specify that small businesses be given more work and GSA contractors will be required to give

prevailing wage rates as agreed by the government.

Mr. Battan indicated that he feels that the agencies required to use GSA contracts will be slowly, but carefully, expanded to include NASA, Agriculture, USIA, DOD and others. He feels that there are now too many in-house government labs and that Federal agencies should be required to include things like liberal fringe benefits as part of the costs they prepare to justify in-house work. He expects GSA to increase its film work buying in the years to come with private companies in Washington, D.C., New York and Los Angeles continuing to get the most work because of their proximity to government agencies. He also hopes to see a reduction in agency in-house tape dubbing and tape-to-film transfers in the near future.

Water — Watts — and Waste!

Raymond H. De Moulin, Director, Photographic Program Development, U.S. & Canadian Photographic Division, Eastman Kodak Company, Rochester, N.Y. 14650.

This paper proved to be of special interest due to energy problems and EPA requirements which face all laboratories today. According to Mr. De Moulin, there are three factors that have reduced the amount of waste load in some processes. They are the film stock, the equipment design and the amount of waste generated during a product's nonprocessing mode. He used as an example the ECP-2 process which shows a 90% reduction in the amount of waste load as compared to ECP-1.

Water saving devices on processing machines which effect the amount of water generated during periods when the machine is in a non-processing mode have had the greatest effect on laboratory flow. Large labs, using new equipment, have less waste than small labs since, at the large labs, machines often run 24 hours a day and all the water is probably used for processing. In smaller labs, much of the waste comes when the machines are processing leader during start up and shut down. The rule of thumb is this: the larger the lab volume, the greater the efficiency and the lower the total flow of raw waste load overflow per square meter of film processed.

EPA Guidelines for the photographic processing industry set silver and cyanide in laboratory wastes at respectively 70 and 90 mg per square meter of processed film. Three factors affect the chemical raw waste loads, namely, process specifications, product specifications and recovery and reuse practices. Reuse of chemicals to process additional film, such as regeneration of bleach overflows, cuts down on costs as well as waste.

Mr. De Moulin's presentation included slides which effectively clarified the information presented.

A Review of Color Negative Film Strip Master Films and Exposure Techniques

Sherwin H. Becker, Director of Engineering, Allied Film Laboratory, Inc., Detroit, Michigan and Chicago, Illinois. Presented by *William H. Smith*, President of Allied.

The purpose of the project undertaken by Allied was to select a master material for film-strip and slide duplication and the techniques for exposing these materials. The master films tested and demonstrated in this paper were Eastman Color Negative II and Ektacolor Internegative Film Type 6008. In the testing, Allied was interested in making a reproduction that looked as much like the original as possible — even if they had a bad original. (If they could do this, they knew that they could correct, at least to some extent, bad originals, and still accurately reproduce good prints.)

Factors considered in testing were: contrast, color rendition, physical aspects of the films, exposure, resolution and grain. It was pointed out that ECN-II, 5247, has the newest form of physical construction — three double emulsion layers, two gel intercoats and an overcoat, all supported by the base. On the other hand, Type 6008 is structurally older, with triple emulsion layers, one double emulsion layer, a double coat of pelloid backing, the two gel intercoats and the overcoat. The 6008 is thicker than ECN-II and this has often caused transport problems and scratching in some cameras. The Type 6008 also has a tendency to wear after many passes through the printer.

Type 5247 has an E.I. of 100 while Type 6008 is about 3½ stops slower with an E.I. of about 9. Type 5247 is balanced for 3200 K but Type 6008 will always require some filtration of the lights or at the lens with the same color temperature. Slides were used, as with other sections, to illustrate the effects of various exposures on both film stocks.

Allied tests showed that ECN-II is at least 35-40% sharper than Type 6008 but, in filmstrip work, resolution is not as important as it is in 16mm or Super 8.

The test indicates that Type 6008 masters have the edge over ECN-II as far as contrast is concerned when the original is a transparency. The highlights in prints from ECN-II, when the original was a transparency, go lighter than the original and the shadows are darker than the original. Gray-scale tests, "the universal picture," also illustrate this point.

When the original was art, the conclusions



Discussing program plans for the next ACVL meeting are 1977 Program Chairman J. Lampert Levy, Robert Smith, Program Chairman for 1976, and Preston Bergin, ACVL Executive Secretary.

were reversed. The prints from the ECN-II master had better contrast and color while the Type 6008 was too low in contrast and the colors were not as strong.

The problem presented to the laboratory, according to Mr. Smith, is that the lab receives a mixture of artwork and transparencies and needs to print them both on one piece of negative. One answer suggested was to improve the quality of Type 5247 to handle transparency contrast to make it "the all-around film for the job." Since we must, at this point, work with the existing stocks, Allied proposed and illustrated four ways to improve the contrast in ECN-II for filmstrip master: (1) By masking, which *does* improve contrast though it is time consuming and costly. (2) By flashing Type 5247 — although this does not so much reduce the actual contrast as gray up the blacks. The result is a subjective lowering of contrast or a reduction in visual contrast. (3) By low-contrast processing of the negative. This, however, causes the highlights to darken with a subjective lowering of contrast because there are no longer any bright whites. The print from the low-contrast negative lacks the sparkle of the 6008. Another drawback here, as with flashing, is that each frame cannot be treated individually and anything gained in transparency duplication will be lost on the artwork contrast. There is also a serious build up of cyan in the highlights in prints from low-contrast negatives. (4) Experiments showed that approximately the same effects gained from flashing and low-contrast processing can be gained by under- and over-exposing the negative and processing it normally. This method is not the "one" answer and, like others, it cannot be applied to individual frames only.

Another Space Probe: What's Ahead for Film Processing Labs?

Panel Discussion. Moderator: *Findlay J. Quinn*, President, Quinn Laboratories, Ltd. Panelists: *Frank M. McGeary*, President, Motion Picture Laboratories, Inc.; *Manfred G. Michelson*, Technical Director, Technicolor Corporation; *Byron Roudabush*, President, Byron Motion Pictures, Inc.; *Fred J. Scobey*, Senior Vice President, DeLuxe General, Inc.; *Irwin W. Young*, Chairman of the Board, Du Art Film Laboratories, Inc.

Frank McGeary was optimistic about the overall continuing growth of the film industry in the coming years although he does not expect it to have the dramatic growth it experienced in more recent years. Theatrical production is down from 1971, Super 8 has grown more slowly than previously predicted, but 16mm is expected to



The afternoon Panel Discussion, "What's Ahead for Film Processing Labs." Left to right: Frank McGeary, Manfred Michelson, Irwin Young, Fred J. Scobey, and Byron Roudabush.

continue its 3-4% increase each year for at least the next 6 or 7 years.

Fred Scobey felt that people development was the most important growth area for laboratories in the future because "labs are a service business." He feels that this area must be developed with the same avidity that has been given to the technological development in the past years. He also urged members to realize that labs must have flexibility to experience growth and profit. He predicted that it would be in the early or middle 1980's before the videodisc would become a factor in the industry and that the optical videodisc would be the "front runner" in this area. With the expansion of videocassettes, cable systems and satellite communications, Mr. Scobey predicts that there will be an increased demand for software on film and on tape.

Irwin Young believes that film has reached a maturity and that videotape has had a tremendous impact on the film industry. "It's here," he said, "but it is not something we have to do something about. We must be specific about what areas tape will really affect." He also believes that both film and tape will find their levels and that laboratories must improve their product to keep their markets and create others. If necessary, laboratories should encourage the use of film in production and provide for distribution in tape. Another important goal for the ACVL, as Mr. Young sees it, is to find ways to produce small orders or single print orders more economically.

Byron Roudabush feels that "film is here to stay" but that the rising cost of doing business is a major problem for the laboratory today. The multiplicity of formats requires more in-house inventory, and constantly rising costs of materials, energy, water and sewerage make profits harder to come by. He believes that part of the answer to a better profit picture for laboratories is for them to do a better job of "costing" the work so that they can know exactly what areas

are unprofitable and revise their systems if necessary. Mr. Roudabush also asked for "fewer and better rawstocks" to reduce inventory and processing problems created by a large number of formats and film stocks.

Manfred Michelson believes that the future of the lab business is dependent on the development of more automation in producing release prints. Rawstock and labor costs account for 50% of the costs in 35mm. In addition, loss of stock from load-up, up-to-speed, short ends, dirt, mislights, etc., all tend to erode profits. Since the laboratory has little control over labor and materials costs, Technicolor has devised a printing system to cut down on the secondary costs. The new Technicolor printer, in use for five weeks at the time of the meeting, is a loop machine that runs at 1000 ft/min (305 m/min) and requires only two operators. It can turn out 1.4 million feet (427,000 m) of color positive or \$100,000 sales in a 24-h workday. No footage is lost in load up or up-to-speed; every splice is on the frame line; the prints should be free of dirt; and there should be no mislights. To handle the processing load, Technicolor is set up to process 14 million feet per week (4.27 million meters) if necessary.

Equipment Papers

Rounding out the program were equipment papers as follows: "Total-Immersion Wet Printers," presented by W. D. Carter, Carter Equipment Co., Lawndale, Calif.; "The Filmline Micro-Demand Drive for Processing Machines," presented by Jack P. Hall, Filmline Corp., Milford, Conn.; "Micro Processing and Printing Control and Film Information System," presented by Ralph D. Whitmore, Jr., Hollywood Film Co., Hollywood, Calif.; and "Improved DC Motor Torque Systems," presented by Chuck Zichter, Peterson Enterprises, Glenview, Ill.