

ically from the operating station keyboard.

Printer Exposure Control

Every laboratory has to contend with still another set of variables — exposure conditions in printers. At Deluxe General where large numbers of printers are in use, the problem of printer exposure control assumes major proportions. Printer tests made by exposing raw stock through a negative of known density are analyzed by the computer and compared with reference values stored in the machine. Interlayer effects can be taken into account also by the computer. It will then print out the corrections needed to maintain uniform printing conditions in all of the printers in the laboratory.

As the authors of these papers comment in conclusion, any system of this nature has to be cost effective. In the case of color positive prints it is difficult to calculate savings; one can only guess at the extent of losses when a process runs out of tolerance and is not promptly corrected, or when a processing machine has to be shut down due to over-control. Deluxe General estimates that the work involved in the correction of timing tapes has been reduced by a factor of four, and these savings alone justified the investment in the control system.

What Next?

No doubt many film laboratory people listening to or reading these papers are waiting for the next obvious step to be taken — the adoption by one of the big laboratories of a completely automated system of motion picture production. Following the presentation of one of these papers at an SMPTE technical conference in Los Angeles the question was asked: "Are you considering a closed loop process control system?" Mr. Michelson, who read the paper, replied: "We are looking at it, but we haven't done it yet".

In an introduction to the papers on process control in the Sept. 1975 issue of BKSTS Journal, in which Mr. Scobey's paper appeared, Paul Read, operations director of Kay Laboratories Ltd., London, made the following comments:

"Every laboratory technician must be looking to the latest crop of new ideas and apparatus to provide that illusory 'new generation' of production techniques equipment. Since the motion picture industry began, its

development has generally been by important single advances rather than in small steps forward. Perhaps we should be looking for something radically different — to the computer-linked monitoring system that Deluxe has developed."

EQUIPMENT NEWS

Note to Canadian distributors: We would like to include the names and addresses of Canadian distributors of equipment and services mentioned in this section. Please ask your suppliers to give Canadian sources in their publicity releases. Ed.

A New Reversal Color Film for Television

A new film will soon be available from Eastman Kodak Co., designed especially for television news applications. Designated as Eastman Ektachrome Video News Film 7240 (tungsten) this material has characteristics similar to Kodak Ektachrome EF film 7242. Ektachrome 7240 has a normal exposure index of 125, and it is balanced for exposure with tungsten illumination at 3200K. For daylight exposure a Kodak Wratten No. 85B filter should be used.

An advance in emulsion technology has eliminated the need for a hardening step in processing. Existing processing machines utilizing the ME4 process for Ektachrome 7242 film can be converted easily to handle the new film. Only a bypass over the pre-hardener and neutralizing tanks is needed. Process VNF-1 for Ektachrome 7240 is similar to Process ME4, but offers significant savings in chemical costs as well as process simplification.

Ektachrome 7240 can be forced in processing one, two or three stops, to an exposure index of 1000. Normal density ranges can be obtained with 10 foot candles illumination at f/2.8. There is a considerable improvement in graininess when this film is force processed, over Ektachrome 7242. The portion of the film's characteristic curve where picture highlights are reproduced is lower in contrast than most other camera original films, a distinct advantage with uncontrolled lighting conditions (available light).

Elimination of the pre-hardener and neutralizer stages in processing reduces the wet time to 14 mins. 15 secs., a gain of 18%. A 10 to 35% reduction in chemical costs can be expected, depending on the ratio of film-to-leader in the machine. With Process VNF-1 there is a reduction of 15 to 25% in volume of chemicals used.

While this film has been developed especially for television news, it is quite likely other uses will be found for it as well. In the production of television programs on film there are many situations where exposures must be made with available light or with a minimum of supplementary artificial lighting. The higher speed obtainable with forced processing, with less graininess than Ektachrome 7242, should be advantageous in many difficult and perhaps otherwise impossible situations. Any improvement in graininess characteristics of 16mm television films is always welcome, since electronic image enhancement, applied in telecine to give pictures with a sharper appearance, tends to accentuate the grain structure of the images as well.

In the introductory period, when the change-over is being made from Ektachrome 7242 to the new film, there will be some inconvenience for the laboratory, but the advantages of reduced chemical costs, volume of chemicals used, shorter mixing time and reduced machine maintenance will no doubt more than compensate for temporary dislocations. It is anticipated that additional products, including a daylight balance film equivalent to Ektachrome 7241 will be available in the near future. Suggestions have been made in the trade that these developments will lead to new and more simplified processing machine designs.

Camera Mounting and Control System for Aerial Filming

Astrovision Inc., 16800 Roscoe Blvd., Van Nuys, Calif., has developed a camera mounting and control system for aerial filming from Lear Jet and other types of aircraft. A 50mm/100mm relay lens system is utilized, with the whole system encased in a pressurized heated tube that can be operated from inside the aircraft. The system can film 360 deg. from below or above the aircraft

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