section reports

The San Francisco Section held a summer time meeting on August 28 at the Army Pictorial Service Center, Presidio of San Francisco. The group was welcomed by Major John E. Fenner, 6th Army Sig. Corps, and taken on a complete tour of the Center, including the processing labs, print storage and film inspection rooms. The Army has approximately 13,000 prints on file there and many types of 16mm projectors, 2 by 2 projectors and tape and disk playback units. After the tour, a new film made by the Army with the filmograph process was shown.

Thomas Ozamoto, Chief Sound Engineer of the Monterey Army Language School, gave a descriptive talk about the equipment used at the school. After covering the school's general operations he described in detail the organization and equipment of the sound department under his control, where a large number of tape recorders, duplicators and 16mm magnetic-optical projectors are used in the process of dubbing English language films into the 29 languages taught at the school. Magnetic soundtracks are used, and several tracks are made in each language, varying in complexity. As the student advances, more and more complex soundtracks are used.

Mr. Ozamoto also described a new closed-circuit TV system used at the school in which the same picture can be shown to all classes at the same time while the sound is provided from a series of individual tape playback units. In this way, different language soundtracks can be played back to different classes.

After the meeting the group was given the opportunity of inspecting many of the pieces of equipment used by the Pictorial Service Center, including one of the new 70mm still cameras.—*Werner R. Ruhl*, Secretary-Treasurer, 415 Molimo Dr., San Francisco.

The San Francisco Section met on October 15, 1957, at the KGO-TV Studios, San Francisco. An audience of 20 heard R. Carroll Maninger, Robert Hopkin and Ken Burtchaell, all of Precision Technology, Inc., discuss a new submicrosecond camera.

Many of the phenomena dealt with in modern technological fields, such as detonation processes and hypersonic ballistics, have time histories in the fractional microsecond region. A new type of high-speed camera developed by Precision Technology consists of a specially designed electrostatic image converter tube which is made to produce not only high-speed shutter action but high-speed framing action by purely electronic means. The framing rate can be changed by the adjustment of one knob. Five frames are made during one run and it is possible to change the times at which the frames are taken. It is possible to take the first frame after 1 μsec, the second after 25 μsec, the third after 180 μsec, etc. Framing rates up to 6,000,000/sec are possible.—*Werner H. Ruhl*, Secretary-Treasurer, 415 Molimo Drive, San Francisco 27, Calif.

The Hollywood Section held its first meeting of the new season September 17, 1957, at the Moody Institute of Science, Santa Monica. An audience of 225 heard three papers delivered by members of the Institute.

The meeting opened with a 16mm color film, *Spider Engineers*, typical of the scientific-educational films the Institute produces. Lewis H. Humphrey gave a talk on the method in use at the Institute of 16mm release printing using a variable-speed printer for maximum efficiency. A Bell & Howell Model JA printer has been modified to make possible printing speeds from 15 to 150 ft or more per minute. The speed is selected so that the highest printing light required in timing the reel is the maximum light available. Thus it is possible to print at higher speeds than if this advantage were not taken of all the light available in the printer.

F. Alton Everest then described the Cardiac Pulse Duplicator, developed at the Institute. This machine makes it possible for a dead human heart to "beat" in a realistic manner through the medium of hydraulic pulses. Color motion pictures can then be made of various valves and other parts inside the heart by photographing them through glass ports.

The last of the three papers was delivered by Irwin A. Moon, Manager, Moody Institute of Science. He described a unique film-processing machine which has been designed and constructed by the Institute. This is a combination 16mm, 35mm, black-and-white and color processing machine. Each shaft is individually driven by a torque motor. Other unique features such as the materials used in its construction were discussed.

At the conclusion of the technical program the audience was invited to tour the Moody Institute facilities and see at first hand the various pieces of equipment that had been described. During the tour the first half of a film which has just been completed by the Institute, entitled *Red River of Life*, was shown. This film employed the Cardiac Pulse Duplicator to show the action of the human heart in the circulatory system. It has received an enthusiastic response from doctors and the press at previews in the Hollywood area and was to be premiered in the major cities of the U.S. early in October.—*Robert G. Hufford*, Secretary-Treasurer, c/o Eastman Kodak Co., 6706 Santa Monica Blvd., Hollywood 38.

The Hollywood Section meeting on October 15, 1957, at ABC Hollywood was attended by about 190 persons. The program was opened with an interesting 16mm color film, *X-13 Vertijet*, which depicted the development of the Ryan VTOL Aircraft from its original concept through its various tests including the recent flights from vertical take-off through transition to level flight and back to vertical landing.

Loren L. Ryder, Ryder Sound Services, spoke on "Simplified Production Sound Recording Channels." He demonstrated the Eldorado studio recording channel and the Minx location recording channel, and told of the many automatic features incorporated in these channels to facilitate production sound recording.

Lorand Wargo, Unicorn Engineering, gave a talk on the automatic setting of printer lights on the Bell & Howell Models D & J Printers by use of a punched paper tape cuing device and a servo mechanism attached to the printer light change lever which the paper tape directs. This equipment was on display during the meeting and was demonstrated afterwards.

The new low-cost Research Council Screen Brightness Meter was described by Petro Vlahos, of the Motion Pciture Research Council. He showed how this meter met the optical requirements for making brightness measurements of directional screens and still stayed within the cost limits that would permit its being purchased by theater owners and other groups concerned with measuring screen brightness.—*Robert G. Hufford*, Secretary-Treasurer, c/o Eastman Kodak Co., 6706 Santa Monica Blvd., Hollywood 38.

The Canadian Section held a regional meeting September 24, 1957, in the auditorium of the National Film Board Building, Montreal. Approximately 50 members and guests, including several from the Toronto area, were present.

The first speaker of the evening was Guy Glover, an executive producer at the National Film Board. Mr. Glover discussed various aspects of motion-picture production from the point of view of an executive producer and stressed the interdependence of all groups involved.

Rodger Ross, technical supervisor of film operations for the Canadian Broadcasting Corp in Toronto, delivered a paper on "Film in Television." Mr. Ross gave some interesting statistics on the quantity of film used in television in Canada, pointing out that CBC used approximately 40,000,000 ft of release stock annually, most of it for kinescope recordings. Technical problems encountered both by the television broadcaster and film producer were also covered by Mr. Ross.—*Ronald R. Ringler*, Secretary-Treasurer, c/o Du Pont Co. of Canada, Ltd., 80 Richmond St. W, Toronto, Ont., Canada.

Potential of 16mm as Production Medium

Cinesound Ltd., Toronto, was the scene of a Canadian Section meeting Nov. 21 at which an attendance of 70 members and guests heard an instructive lecture by John M. Maurer on the potential of 16 mm as a production medium. After outlining the capabilities and limitations of 16 mm, Mr. Maurer demonstrated a new recording technique for variable-density optical soundtracks.

The subject matter was covered under four headings; objectives, specialization, equipment maintenance, and cleanliness and control.

The first objective of any lab, Mr. Maurer pointed out, is to make money. The growth of the lab into a moneymaking operation is dependent upon the grade of work it is able to produce. If the quality of work is high, the lab can grow by leaps and bounds in this specialized area of photography. Mr. Maurer cited his own organization as an example, it having grown from a small group of fifteen to an organization of 200 in a relatively short period of time.

Mr. Maurer pointed out that there is a definite need for specialization within the motion-picture lab field. He thought that 16mm and 35mm should not be handled in the same lab, because the processing of 16mm required much finer detail than the 35mm operation.

The laboratory specializing in 16mm work has had to work with outmoded equipment for the most part. Manufacturers have not thought it profitable to market 16mm equipment. There have been notable exceptions such as the optical reduction soundtract printer by Kodak and the Oscar Depue reduction printers; however, for the most part, 16mm lab operators have had to use makeshift equipment or construct their own.

Under the heading of printers, Mr. Maurer felt that contact printers in general

produce poor sound. In order to insure reasonably good results, all 16mm pictures should be printed on step printers, even though it is a time consuming process. He pointed out that if someone could produce good printing equipment for 16mm there would be a ready market for it.

The speaker felt that processing units should have the spray principle as the basis for their design, and that uniformity of development can best be attained in smaller units. One of the more urgent needs in the trade is for the manufacture of a good film-cleaning machine; however, the expense of such an undertaking makes its construction almost prohibitive.

Maintenance of lab equipment has been in many cases neglected. Large labs could not afford to keep their machinery in anything but top running condition, while again, the smaller operator would find the cost too high.

The filtration of air and water was another of the subjects touched on by the speaker. Because film attracts dirt, the air coming into the lab must be filtered continuously. In purifying the water, Mr. Maurer found that even when it was well filtered impurities showed up to mar the soundtrack. However, when the filter became clogged, slowing up the flow of solution, the quality of the solution increased, thus improving the soundtrack.

Mr. Maurer found that the best authority on quality control by sensitometry and chemical analysis is the series of articles written by Mr. Levenson of British Kodak which appeared in the now discontinued British publication "Functional Photography" throughout 1955.

The mistake that some labs make in assuming that perfect control in the morning still applies in the afternoon should not occur if it is realized that certain stocks can upset developers in less than an hour. Therefore, tests should be run at least once an hour for perfect control.

Mr. Maurer then demonstrated some equipment that he had developed recently for 16 mm use, starting with a new mask which he claimed will compensate for the usual distortion of electrically printed sound due to nonlinearity of the exposure vs. density characteristics of the film emulsions. The shape of the mask, he reported, will vary with each type of emulsion thus providing optimum quality regardless of stock used. This system increases signal-to-noise ratio by a greater adaptation to emulsion characteristics.

After many months of tests, Mr. Maurer has found that variable-density type of recording is more suitable to electrical printing than his previous conception of variable area. The tracks demonstrated proved this point conclusively in their absence of distortion in the sibilant region of voice frequencies, which is a common fault with variable-area recording.—*Ronald R. Ringler*, Secretary-Treasurer, c/o Du Pont Co. of Canada, Ltd., 80 Richmond St. W., Toronto, Ont., Canada.

The Chicago Section held its first fall meeting at the Prudential Building on September 26, 1957. An audience of 65 members and guests heard David W. Ridgway, Vice-President, Encyclopaedia Britannica Films, Inc., Wilmette, Ill., give a paper on "Film Production Combining Motion-Picture and Television Techniques," referring specifically to the Encyclopaedia Britannica Films Physics Educational Series.

Mr. Ridgway said that the objective was to complete 162 half-hour color films in 162 working days. The physics course was being televised for the Pittsburgh area by WQED-TV while the filming was being done. For this reason, careful plans were made before putting the program on the air, so that the production schedule could be maintained.

As background for the series, Mr. Ridgway cited the serious shortage of science teachers, particularly of physics. At least 4000 high schools in the U.S. do not have a physics course. In view of this need, the Ford Foundation appropriated money for this project.

Two TV cameras and two motion-picture cameras were set up in the studio. Approximately 10 tons of air-conditioning equipment were required. The lighting consisted of four 5-kw spots, seven 2-kw spots, two 1-kw and four 750-w lights. The area to be illuminated was approximately 18 by 20 ft. Production schedule was completed with only seven retakes. The editing required on the average about 6 hours for a 30-minute lesson. At the present time 100 schools are using this physics course.—*Howard H. Brauer*, Secretary-Treasurer, c/o Bell & Howell Co., 7100 McCormick Rd., Chicago 45.

The Atlanta Section held a meeting on October 16, 1957, at Radio Station WGST on the Georgia Tech campus. Twenty-five members and guests were in attendance. Before proceeding to the main business of the meeting, the new officers for 1958, elected in the recent elections, were presented to the group.

A paper on "Cronar Polyester Photographic Film" was then given by H. T. Harding, Motion Picture Product Mgr., E. I. du Pont de Nemours & Co. A description of this film base was first presented at the 78th Convention at Lake Placid, and subsequently was published in the December 1955 *Journal*. Mr. Harding's talk was illustrated with slides, and he also had samples of the film available for inspection. His presentation was followed by a question and answer period.

Following the talk, a film on photographic lenses was shown.—*Charles W. Wood*, Chairman, c/o Eastman Kodak Co., 4729 Miller Dr., Chamblee, Ga.