

Symposium on Underwater Photography

Coronado, Ca., 27-28 July

This Society will hold a two-day Symposium on Underwater Photographic Applications at the Hotel Del Coronado, Coronado, Cal. Program Chairman Roderick T. Ryan announces the following papers already scheduled for the program:

A New Color Film for Water-Penetration Photography

N. L. Fritz, *Eastman Kodak Co., Rochester, N.Y.*

Light in the Sea

S. R. Baig, *Nova University Oceanographic Lab, Fort Lauderdale, Fla.*

An Experimental Black-and-White Film Designed for Underwater Photography

B. K. Boller, *Eastman Kodak Co., Rochester, N.Y.*

New Self-Contained DMB-1 16mm Camera

F. A. Rodgers, *Teledyne Camera Systems, Arcadia, Ca.*

Underwater Photography in the Red Sea

David Pilosof, *Consultant, Israel*

Underwater Colorama (Documentary Film)

George Massios, *Science Editor, Eastman Kodak Co., Corporate Information Dept., Rochester, N.Y.*

Other papers are coming from Westinghouse Electric Corporation — Oceanic Division, California Institute of Technology and a number of other institutions and individuals concerned with oceanography and underwater photography.



Roderick T. Ryan
Program Chairman

May 4 is the deadline for receipt of synopses of the papers and author forms at Headquarters. Offers of papers and requests for author forms should be sent to:

Roderick T. Ryan
Eastman Kodak Company
6706 Santa Monica Blvd.
Hollywood, CA 90038
(213) 464-6131

Copies of this correspondence should also be sent to SMPTE Headquarters, attn: Underwater Photographic Applications Symposium.



Meeting Announcements

Midwest Regional Meeting

The second SMPTE Midwest Regional Meeting will be held 12 May at Calvin Communications, Inc., in Kansas City, Mo. The program is expected to include eight, or possibly 10, papers on motion-picture and television topics.

The following program papers are definite:

"A new 16mm camera negative film, Type 7247," Eastman Kodak Co.

"Video/Film productions at Ohio Bell Telephone."

"Super-8 productions for TV use," Chuck Cyberski, KDUB-TV, Dubuque, Ia.

A paper by Anton Wilson, Anton/Bauer Photographics.

"New applications for Super 8," Bill Bowles, Calvin Communications.

Other papers are expected on: origination for cable TV; film productions for TV use; video-to-film possibilities; application of the Sony cassette to industry; multimedia display; exposure meters; color temperature meters.

The registration fee of \$8.00 includes a buffet lunch. Advance registration is requested. Additional information and registration forms are available from William D. Hedden, SMPTE Sections Vice-President, Calvin Communications, Inc. 1105 Truman Rd., Kansas City, MO 64106.

The first Midwest Regional meeting was held 10 June 1972 and was attended by more than 200 members and guests (*Journal*, pp. 644, 646, August 1972).

BKSTS Biennial Meeting

Film '73, which will be held 25-29 June at the Royal Lancaster Hotel in London (*Journal*, p. 226, Mar. 1973), is expected to attract more than 1,000 delegates from many countries, including China, Germany, Russia and the United States of America, it was recently announced. Arrangements for the conference are well advanced and a number of speakers are scheduled. The social program will include visits to Pinewood Studios and to Goodwood House in Sussex, seat of the Duke of Richmond and Gordon, among other interesting places. All the space allotted for the exhibition has been sold and companies will exhibit the latest equipments and services in the field of motion-picture, television and related industries.

Northwest Two-Day Meeting

The Sixth Motion Picture Seminar of the Northwest will be held 4-5 May in the

Seattle Center playhouse in Seattle, Wash. The film competition will have the theme of "Hope." Basic requirements for competing films will probably be 16mm, 5-min noncommercial films produced between June 1972 and May 1973.

Of related interest is the traveling "hands on" seminar, sponsored by members of the SMPTE Pacific-Northwest Section, scheduled for Portland, Seattle and Vancouver, B.C. Additional information is available from: Frank Hood, Teknifilm, 1923 N.W. Kearney St., Portland, OR 97209; Chip Wilkenson, Eastman Kodak Co., 9675 Sunset Hwy., S.E., Mercer Island, WA 98040; or Ralph Umbarger, Alpha Cine Service, Ltd., 1195 Richards St., Vancouver 2, B.C. The May meeting of the Pacific-Northwest Section will coincide with the Motion Picture Seminar.

Denver Section History

To commemorate the 10th anniversary of its founding, the Denver Section has compiled a history of the Section's activities from 1962 to 1972. With initiative and follow-through provided by former Section Chairman John H. Seide, the 17-page booklet records the names of the founders and of all officers and managers, year by year; the authors and titles of all papers presented at Section meetings and the locations where the meetings were held; and an up-to-date listing of names and addresses of all Denver Section members.

The result is a record of which Denver members may well feel proud. The Society's thanks are due to John Seide and all those who helped put together this useful and lasting record.

The Transistor — The 25-Year Revolution

The invention of the transistor at Bell Telephone Laboratories — a revolutionary invention that ushered in the age of miniaturization, making possible small computers, communications from earth to moon and other goodies of the space age — took place more than 25 years ago. Originally developed as a solid-state replacement for vacuum tubes in telephone applications, transistors have affected the daily lives of practically everybody. They are used in wrist watches, home appliances, telephones, and in the computers used in credit card systems, banking, airline flight reservations and scientific research and engineering. Transistorized equipment is used to send electrocardiograms over the telephone to specialists at distant locations.

The transistor effect was discovered in December 1947 by John Bardeen, William Shockley and Walter H. Brattain who succeeded in amplifying an electrical signal by sending it through a very specially prepared crystal of germanium. The next step was to make the transistor a practical device and in 1951 Western Electric's Allentown Works began manufacturing the new device. In 1956, the three inventors, Dr. Bardeen, Dr. Shockley and Dr. Brattain received the Nobel Prize in Physics for their work.

Meanwhile, the technicians at Western Electric had encountered unusual problems in the manufacture of the tiny device. Some of the early transistors, they recall, "behaved like things possessed." Part of the problem was the incredibly small dimensions involved in transistor manufacture. Transistor action occurs in areas so infinitesimally small that thousands of them can be fit into the thickness of a sheet of paper. Other dimensions are equally fearsome. But the real problem was contamination. The purity of the germanium used for transistors had to be several orders of magnitude higher than anything then available. The slightest trace of any impurity would make a transistor behave erratically or kill it altogether. At times the transistor "death rate" was so high that the Allentown engineers fabricated (verbally) a mysterious element called deathium to explain the high mortality rate of the new transistors.

To make the problem more complicated, germanium used for transistors had to be cut from single crystals of the element and a method had to be devised for growing perfect single crystals. The impurity problem was solved by a method developed at Bell Laboratories called zone refining — a means of refining germanium and other semiconductor materials to a degree of purity never before obtained by man or nature. At the same time the art of crystal growing was being developed to the point where giant silicon crystals weighing as much as seven pounds are routinely grown. In 1953, silicon entered the transistor picture and a method of melting and

refining it without actually touching it had to be devised. (Silicon has a melting point of 1417°C and at that temperature it reacts with any material used to contain it.)

That problem was solved by a variation of zone refining called float zone growing in which high-power radio waves are used to melt a thin section of silicon rod and move it and its impurities down the rod. As the transistor's capabilities have grown its size has shrunk. Transistors built into integrated circuits have shrunk almost to the vanishing point. Five or more of these minuscule devices occupy less space than the cross-section of a human hair and some integrated circuits incorporate hundreds of transistors on a single chip of silicon.

Skylab TV: A New View in Space

An orbiting space station, called Skylab, constructed to carry on studies of the earth's resources, the sun, and man in space, will be the next step in the exploration of space, following completion of the Apollo flights to the moon. Skylab, with a livable interior of 13,000 ft³, is expected to be in orbit early this year with a three-man team on board for a 28-day stay. Two later tours of duty will last for 56 days. A tiny (13 lb 7 oz) TV camera, developed by Westinghouse Electric Corp., will beam to home TV sets on earth programs showing activities going on in Skylab.

The first astronauts on duty aboard Skylab will perform 55 experiments. Some will be complex investigations in solar physics; others that may be televised will, possibly, include a spider attempting to spin a web in the weightlessness of space, or a test to determine whether dissimilar metals can be welded together in space using an electron beam welder.

The new TV camera, although similar in outward appearance to the color cameras carried on the Apollo missions, has been entirely redesigned inside. An important change is the use of some advanced electronic components called multi-hybrid packages which contain up to nine layers of microminiature transistors, resistors, amplifiers and capacitors in an epoxy block as solid as wood and not much larger than a match book. The tiny electronic building blocks enabled Westinghouse engineers to increase the amount of circuitry by 50 per cent with no sacrifice in size or reliability. The circuitry enables the camera to transmit a vertical interval test signal that can be projected on an oscilloscope in Mission Control and will help controllers to determine conditions on the vast communications network that is used to transmit television from tracking stations around the world back to the Manned Spacecraft Center in Houston.

The TV camera will be carried into space inside the command module; after rendezvous with Skylab it will be transferred into the orbital workshop. A backup unit will be held in the command and service module. The camera's 30-ft cable can be plugged into any of the six outlets located in the space station complex. Three are in the orbital workshop, one in the airlock module, one in the multiple docking adapter and one in the command and service module.

The remote lens assembly weighs 3 lb 8 oz and is interchangeable with the smaller lens unit normally used inside Skylab. A universal clamp will enable the astronauts to snap the camera into the gridwork that forms the floors and ceilings of the orbital workshop. A new Angenieux lens has been designed especially for the exacting demands of the workshop in space. The variable focus zoom lens on the camera has a focal length of 25 mm to 150 mm, providing a diagonal field of view from 54° to 9°. Behind the lens a special burnproof electron-bombarded silicon imaging tube converts the visible images into electrical signals and amplifies them many times before reconverts them to even more distinct visible images. The camera employs the field sequential technique using a tiny wheel which spins six color filters in front of the imaging tube at 600 r/min. Also on board the Skylab will be videotape recording equipment.

Walter Bruch Celebrates 65th Birthday

Prof. Dr.-Ing. E. H. Walter Bruch, who has been honored internationally as the originator of the PAL color television system, celebrated his 65th birthday 2 March 1973. He is Chief of Research and Development for AEG-Telefunken and he is a member of the Board of Governors of the German Fernseh-und-Kinotechnische Gesellschaft (FKTG).

During the 20s while he was still a student he started his first experiments in television and shortly thereafter he became the Scientific Associate of Manfred von Ardenne and Dénes von Mihaly. In 1935 he started working for Telefunken and in 1937 at the Paris Worlds Fair he demonstrated an Iconoscope TV system he had developed. After World War II he completed an in-depth analysis of the NTSC System as well as that of the French SECAM. He then improved the NTSC system by a delay line in the receiver and named the new system PAL (Phase Alternation Line) system.

Among the many honors that have come his way in recognition of his pioneering work in television are included the Geoffrey Parr Award presented in 1967 by the Royal Television Society, of which he is an Honorary member; the Great Merit Cross With Star of the German Federal Republic; and the Merit Plaquette of the City of Hannover. In 1971 he received the David Sarnoff Gold Medal Award presented by the SMPTE "for his contribution to the development of the PAL system . . . and for his continuing efforts toward the improvement of color television," the citation stated.

The Vereinigung Schweiaerischer Gemeinschaftsantennenbetriebe (VSGB) is a newly formed Swiss CATV Association. It is also known by its French name of Association Suisse des Exploitants d'Antennes Collectives (ASEAC). Membership is open to companies and communities operating CATV systems. The founding members are Rediffusion AG, Coditel SA, Teledysa SA and Telesystems-Holding AG. President of VSGB, elected for a two-year term, is George Klempere, General Manager of Rediffusion AG, Gartenhofstrasse 17, 8036 Zurich, Switz.



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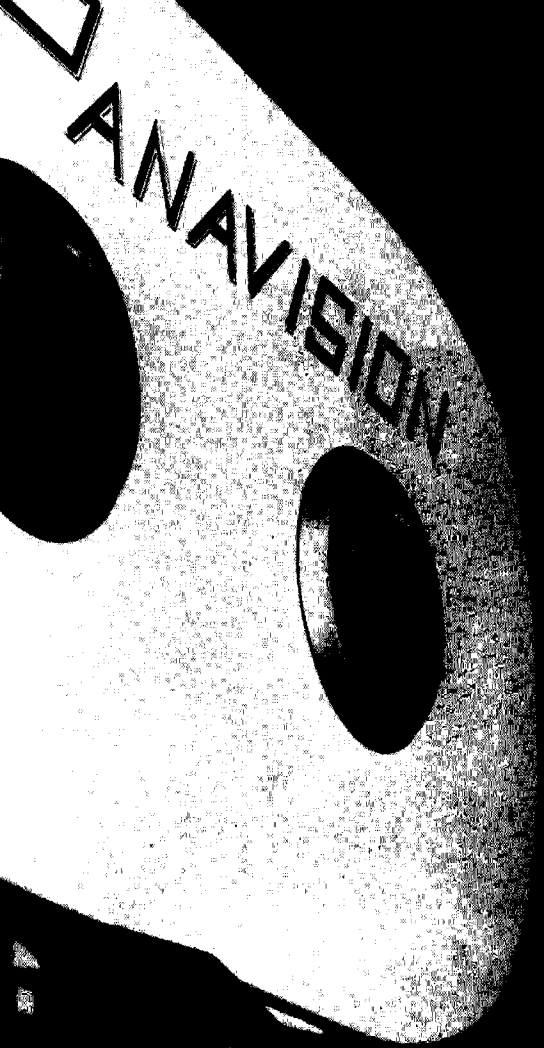
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LA NAVISION

“I knew it the moment the producer showed me the script.

“But more important than the Emmys and other awards that ‘Brian’s Song’ won was the fact that it was the highest-rated made-for-tv movie ever. I mean, people wanted to see this movie. Maybe even needed to.

“That’s why thousands of them packed Chicago theaters to see ‘Brian’s Song’ just a few weeks after it had been on television.

“And, as a cameraman who has been in the business for fifty years, working on ‘Brian’s Song’ made me feel good. You know, jumping from one medium to another without a hitch.

“That’s why I like the flexibility and freedom of something like Eastman film. And why I’ll stick with it.

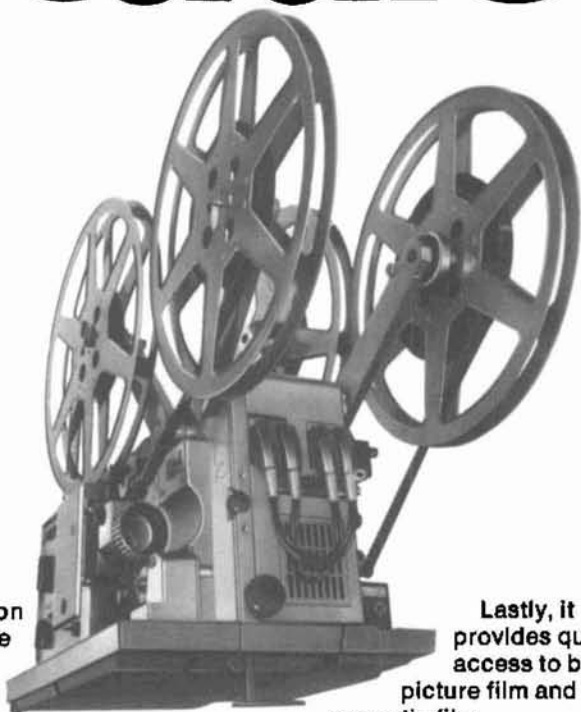
“After all, I never know when another ‘Brian’s Song’ might come along.”

Joseph Biroc. Award winning
Director of Photography, “Brian’s Song.”



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Called (appropriately enough) the Bauer P6 Studio, our unit offers a number of advantages. It projects both optical and magnetic sound tracks. Does lip sync recording and playback of magnetic sound on 16mm full-coated magnetic film. Offers a choice of 200 mil edge and 100 mil center tracks. Transfers sound from picture film to magnetic film, or vice versa, without requiring additional equipment. Permits sound monitoring during the recording on any magnetic track. And, of course, has a synchronous motor.

And even its amplifier is studio-like, including the outputs, which match the impedances of studio equipment.

Lastly, it provides quick access to both picture film and magnetic film.

For additional information, contact your authorized Bauer dealer. Or drop us a line.

You'll get instant action.

And ask about our other professional 16mm projection equipment:

The Bauer P6 Synchron. With sync motor for critical TV work and for synchronizing with tape recorders. Manual threading. Optical playback, magnetic record-playback.

The Bauer P6 Automatic 300. Super-quiet and super-bright. Uses metal arc light (almost 4 times as bright as conventional tungsten lamps). Optional change-over device permits continuous showing of any length film.

The Bauer P6 Automatic M152. A superb A-V projector. Self-threading, with optical playback, magnetic record-playback. Sound-on-sound facilities.

More than three-fourths of all CATV subscribers in Switzerland are connected to the systems of the founding members, the announcement stated. Purposes of VSGB, according to the bylaws are (1) to assure that each CATV subscriber has access to a maximum number of TV channels without restrictions and of a quality level commensurate with the state of the art; (2) to take a unified stand on matters of licenses, franchises, copyright laws, local origination and similar matters; and (3) to coordinate and stimulate contacts with appropriate national and international organizations.

Techniques in High-Speed Photography, an intensive program to be held 18-22 June, has been announced by Massachusetts Institute of Technology, Cambridge, MA 02139. The program will be concerned with the scientific and engineering uses of high-speed photographic measurement techniques and will center on the use of high-speed cameras as instruments for giving space-time information on mechanical motions. One of the objects of the program is to give a practical, everyday working knowledge of many of the cameras that are in active use today. Subjects to be covered include pulsed stroboscopic lighting, optical high-speed cameras, Kerr cells, Faraday shutters and image converters. Mornings will be devoted to theory and demonstrations and afternoons to practical laboratory demonstrations of many types of high-speed photographic equipments. The program will be under the direction of Charles E. Miller and Prof. Harold E. Edgerton of MIT's Dept. of Electrical Engineering.

The Seventh Annual Seminar on Techniques and Applications of High-Speed Motion-Picture Photography will be held 22-25 May at Ryerson polytechnical Institute, Dept. of Photographic Arts, 50 Gould St., Toronto, Ont., Can. The seminar is co-sponsored by the Institute and Photographic Analysis Ltd., 8 Brian Cliff Dr., Don Mills, Ont., Can. Charles A. Jantzen of Wayne, N.J., will conduct the seminar. Hans Westerblom, Supervisor and Instructor of Photographic Techniques at the Institute, will give an introduction and demonstration of holography. During the workshop session, photoinstrumentation techniques, such as time-lapse, microflash with still cameras, image converter cameras and schlieren photography will be demonstrated. The seminar is designed to demonstrate the value of photoinstrumentation as a research, engineering and diagnostic tool. Informal discussions will be held during the seminar to deal with particular applications and problems. The one-day workshop session enables each student to conduct an experiment of his choice using any of the methods and equipments discussed.

Members of the American Film Institute's program staff met with representatives from 20 cities and states on 5 February at AFI headquarters at John F. Kennedy Center for the Performing Arts in Washington, D.C. Program officers from major museums and colleges attended. One of the purposes of the one-day conference was to discuss mutual needs in cul-



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Berkey Colortran's Ring-Focus Fresnels are a major improvement in Fresnel spotlights.

Lens Colortran's new lens designs provide highest optical performance coupled with incredibly smooth fields. Barndoor cutoff is sharp. You will find the optical performance of the Ring-Focus Fresnels to be superior to any other spotlight in the market. This is the new quality and performance standard for the industry, competitive comparisons are invited.

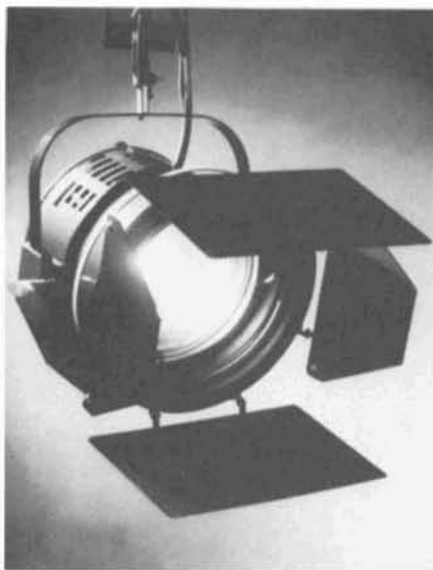
Focusing Focusing is accomplished by moving the lens, not the lamp carriage. A wrap-around cool focus ring permits fast easy focusing. Focusing may be done in any position. Focus ring is equipped with an adjustable drag to permit pole operation from the floor. The Ring-Focus Fresnel is the only spotlight that can be handled for focusing purposes after it has been on for hours.

The lamp doesn't move. No flexing of feed wires, no fraying, no filament shock. The spot flood focus ring remains cool to the touch and its 360° access makes it convenient to use whether you're on a ladder or catwalk. With the cool pan and tilt handle, its easy focus all the time.

Relamping Colortran's Ring-Focus Fresnels offer unique rear lamping so that gel frames and barndoors don't have to be reset. Focus adjustments remain unchanged.

Socket The new floating diamond four-point contact socket

Ring-Focus Fresnel with rear lamping



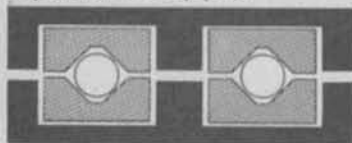
(patented) doubles contact area and eliminates arcing and overheating. Pressure is constant and preset. Floating contacts are self aligning preventing lamp base, and seal failures.

Cooling and lamp life Improved cooling provides increased lamp life. New double wall construction, vented bottom housing, and a floating lens design permit cool air flow even in the critical 90° down position. Data from studios now using the Ring-Focus Fresnel indicate a lamp improvement in excess of 50%. Here's why:

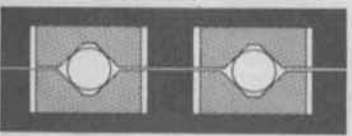
Focusing. Ring-Focus eliminates mechanical shock to the filament. Focusing the spotlight while hot is often the cause of premature lamp failure. With the Ring-Focus Fresnel, you move the lens — not the lamp.

Floating diamond four point contact socket

Floating Diamond Socket open. Flexible halves of diamond move to position of lamp pins.



Floating Diamond Socket closed. Diamond makes contact at four points with preset pressure.



Lamp failures in spotlights are often caused by air leakage where the contact post goes into the lamp. This air leakage is due to heat build-up in the socket and uneven socket pressure against the contact posts. Colortran's floating diamond four-point contacts make contact at four points instead of two, improve cooling, insure against pressure leaks and assure uniform contact pressures.

Cooling Manufacturers' average rated lamp life is based on lamps burning in open air. When these lamps are used in conventional fixtures, lamp life is decreased. The better the cooling, the longer the lamp life.

Colortran's new unique air flow design improves lamp life. Double wall construction, vented bottom housing, and suspended lens combine to provide optimum air flow and increased lamp life.

Rugged mechanical design makes the Ring-Focus Fresnels easy to use in the studios or on the go. These rugged units will take more punishment with less up keep. The floating lens is less likely to crack, even when the unit is dropped. The patented bi-post socket will outlast any other.

Labor Colortran's Ring-Focus Fresnels save you production time because they're easy to focus when hot, focus in any position and are easy to relamp. Fewer relampings per year, and rear-access eliminates resetting barndoors, all this means money to you.

Colortran's Ring-Focus Fresnels

8" 1.5kW and 2kW

10" 2kW

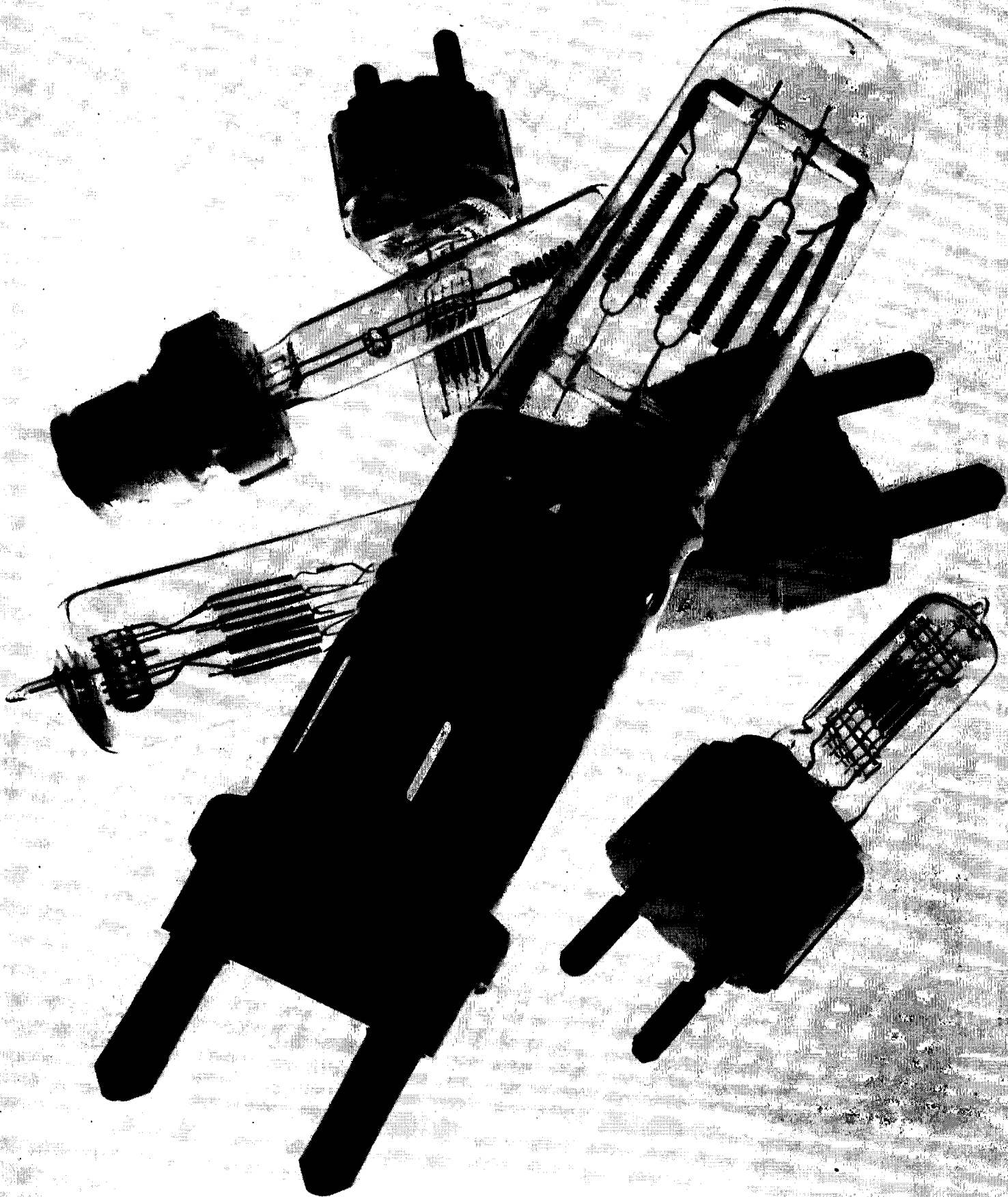
12" 5kW

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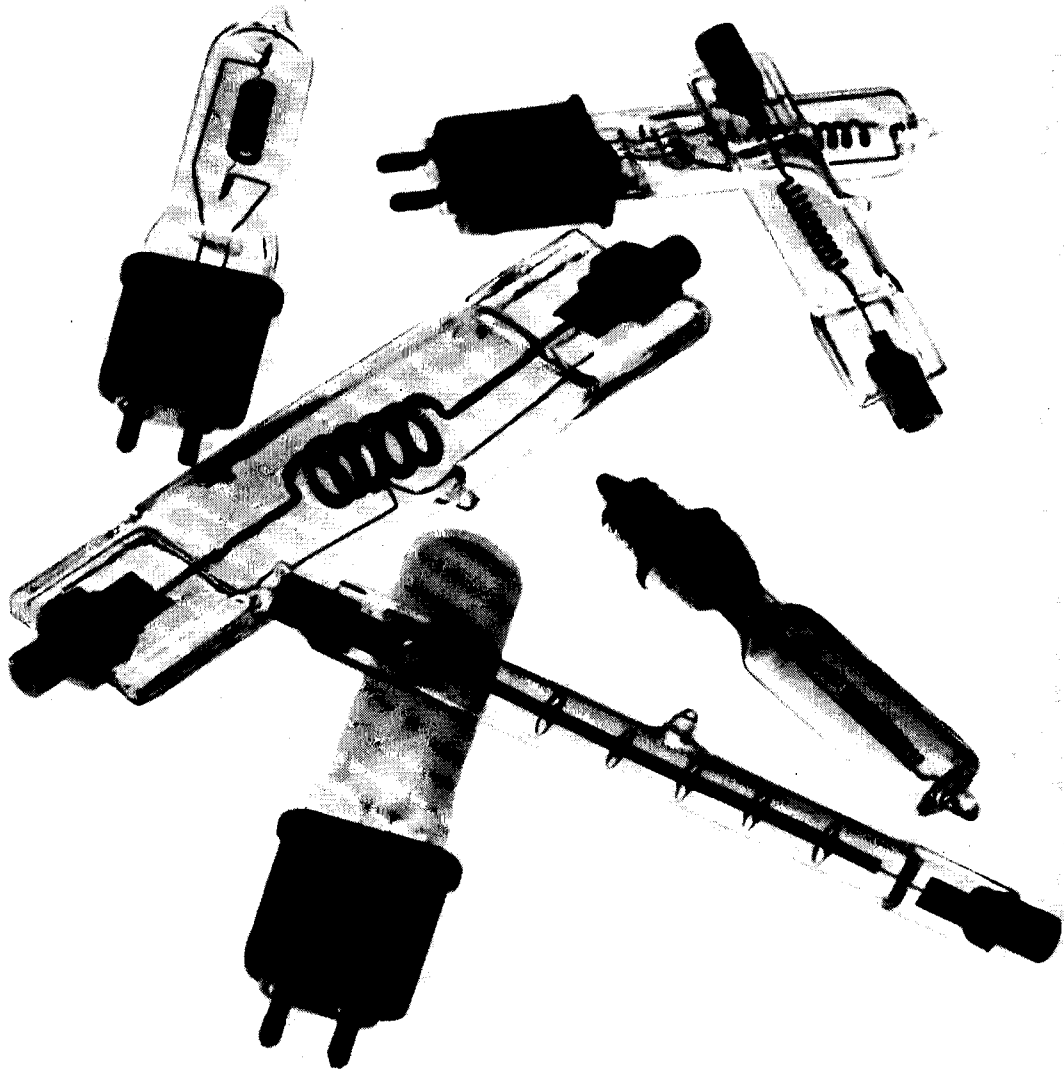
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Those big, fat incandescents blessed the world with a lot of big, fat fixtures and sockets.

So after we came up with our skinny, little tungsten-halogen lamps, the first thing we had to do was set them up on big, fat bases so that they'd fit the old sockets.

Which meant developing a complete line of Substitution Lamps. (You see some of them at the left.)

But soon new fixtures arrived on the

scene. These took full advantage of the inherent small size of Sylvania tungsten-halogen lamps.

(Which, by the way, outlast the fat incandescents about 3-to-1, don't blacken and lose brightness with age, and don't fall off in color temperature.)

For the new fixtures, we developed a complete new Standard Line of tungsten-halogen lamps, like the ones on the right.

Whenever studios replace their old fixtures with new ones, they can substitute

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And there's just no substitute for that.

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GTE SYLVANIA

tural film exhibition and the services that could be provided by AFI. Delegates to the conference agreed to select from program proposals submitted by AFI and to nominate and develop other programs that AFI might procure. The proposals included American silent movies, new work by independent filmmakers, surveys of American animation and documentaries, and new unreleased films from abroad. Those attending the conference, other than the delegates from the 20 cities and states and the AFI program staff, included Chloe Aaron, Director of National Education Assn.'s Public Media Program; Yvette Mallet, of the French Film Office in New York; Malcolm Holzman, architect of the new AFI Theater at Kennedy Center; Boyce Nemeck, AFI's technical consultant; and AFI Director, George Stevens, Jr.

The Illuminating Engineering Soc., 345 E. 47 St., New York, NY 10017, has announced that the South Pacific Coast Regional Conference will be held 6-8 June. A session on theater, television and film lighting will be included. Further information is available from the Conference Chairman, Bill Jones, Smoot-Holman Co., P.O. Box 4097, Inglewood, CA 90309.

The Illuminating Engineering Soc., 345 E. 47 St., New York, NY 10017, has announced circulation of a questionnaire by the TTFL Committee to obtain data needed to finalize a Recommended Practice for Sports Lighting for Color TV. Among the

data requested by the questionnaire are the types of cameras used for daily studio and remote pickup activities and the lighting levels required including the additional lighting required for zoom lenses, lens extenders, etc.

National Camera, 2000 West Union Ave., Englewood, CO 8010, has announced 11 National Camera Area Workshops to be held in 1973. The workshops will be held in two series in eight cities throughout the country, as three-day field training sessions for photo equipment technicians. They are prepared and conducted by National Camera with practice equipment provided by participating manufacturers. The 1973 series will cover selected photo equipment products from Graflex, Honeywell, Minolta, Polaroid and Yashica. The "A" series will be held 12-14 Apr. in San Francisco; 26-28 July, Albuquerque; 30 July-1 Aug., Atlanta; 11-13 Oct., Cleveland; and 15-17 Oct., Boston. The "B" series will be held 6-8 May, Boston; 10-12 May, Detroit; 24-26 Sept., Portland; 1-3 Oct., Los Angeles; 25-27 Oct., Albuquerque; and 29-31 Oct., Atlanta.

The International Industrial Television Assn. (IITA), P.O. Box 297, Summit, NJ 07901, has become the official successor organization to the merged Industrial Television Soc. and the National Industrial Television Assn. The IITA is a user group of specialists in business, industry, education, government and similar organiza-

tions devoted to the professional development and use of television and related techniques for communication, training, information, instruction, observation and documentation. The IITA offers its members the monthly *Industrial Television News*; periodic *Industrial Television Reports*; professional seminars, meetings and conferences organized on a local, regional and national scale; access to a professional library of print, video and audio materials; a member directory; and staff consultation.

DeLuxe General Inc., 1546 N. Argyle Ave., Hollywood, CA 90028, and Royal Business Funds of New York have concluded an agreement whereby DeLuxe acquires a substantial interest in Precision Film Laboratories, it was announced jointly by Robert T. Kreiman, President of DeLuxe General, and Stephen Pollan, President of Royal Business Funds, Inc. According to the terms of the agreement, DeLuxe will have supervision over the full operation of Precision's Laboratory in New York. Burton Stone continues as President and Chief Operating Officer of Precision.

The Society for Experimental Stress Analysis, 21 Bridge Sq., Westport, CT 06880, has announced the third SESA International Congress on Experimental Mechanics to be held 12-18 May in Los Angeles. Authors from 22 countries will present papers. Five invited lectures plus 118 technical papers will be presented in

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Also available are scores of other lenses, ranging from 8.5mm to 1,000mm telephoto, zoom and those motordriven among them, for immediate delivery, after being tailored to your specifications.



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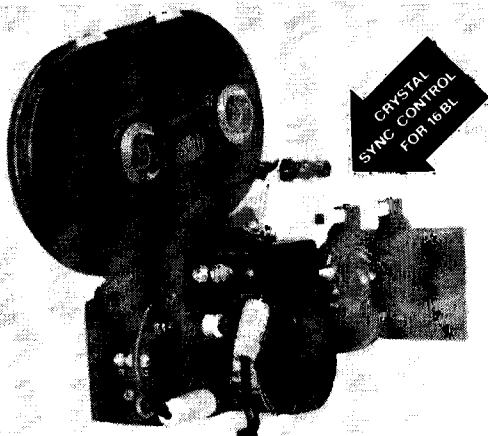
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EXCLUSIVE FEATURES:

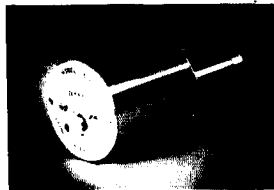
- ★ Pre-wired with external connector for radio slate.
- ★ Automatic out-of-crystal-sync safety camera stop.
- ★ External sync input (slave your BL from any pilot source).
- ★ No camera width increase; camera fits in case with unit attached.
- ★ Accuracy better than 1/6 frame per 400' (± 10 ppm) -4°F to $+140^{\circ}\text{F}$.
- ★ All controls safely recessed.
- ★ Bypass Button allows for immediate mode change back to camera governor-controlled speed.



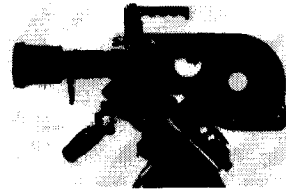
OTHER FEATURES: • Snaps right on in seconds; no tools. • Lightest and most compact unit: 12 ozs. and streamlined. • Variable speed range 8-50fps. • Hundreds field-proved in Europe for over two years. • Immediate delivery. • Unconditional 1 year guarantee.



Time Sync Generator fits all recorders Model 550

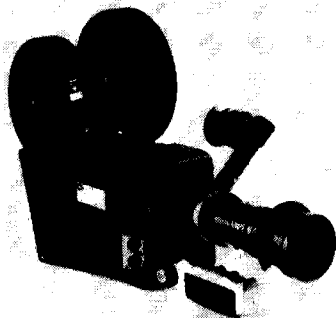


Crystal Motor for Arri S or M Model 504



Eclair Cible Retrofit Model 508

News/Doc cameramen everywhere:



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Arri 16BL's APEC: Does the pro *need* a built-in meter?

With your eye at the eyepiece, you can frame, focus *and* set the f stop. Accurately — and fast. It could save the shot.



Sceptics were dubious in the beginning. "No substitute for a hand-held incident reading," they said. For lighting a set, we agree. No contest.

But in documentary situations, there's clearly nothing better than a meter set behind the lens. Because it tells you *precisely* how much reflected light is getting to the film.

Does it read the whole frame?

No! APEC reads a central area of the frame — about one-third of the full aperture, regardless of focal length. If you

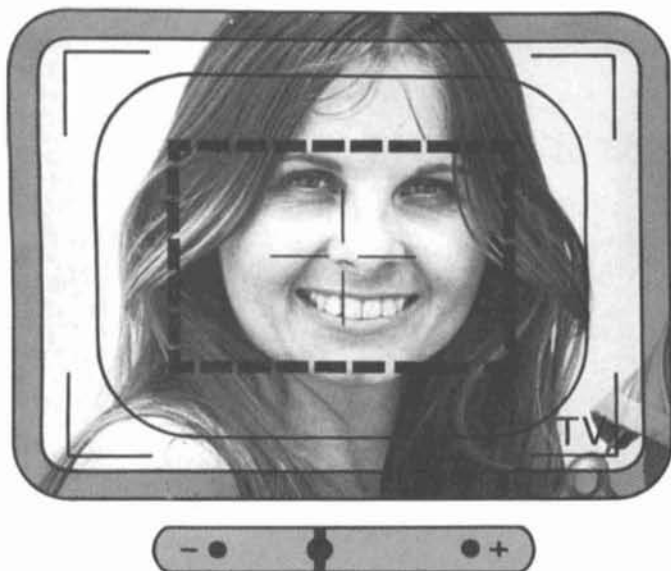
zoom in to 120mm, for example, you get a closeup reading of 3 degrees. (See the photo on the next page: the dotted line shows the measured area.)

How fast is it to operate?

Frame your subject, and focus. Then center the APEC needle, by turning the f stop ring. That's all! And all with your eye at the finder. You take the reading and set the stop *all in one movement*.

Reading inaccessible subjects

Zooming in for an APEC reading is a lot faster than walking onto the set, of course. And sometimes it's not easy to *get* there. Shooting surgery, for example; or wildlife. Or a speaker at the podium.



See the reading during the shot

The needle is visible just below the image area, as you can see above. If the action moves from shade to sunlight, you can ride the f stop. (APEC is manual, of course—not automatic.) And this is a noteworthy fact: Some APEC users have gotten *one-light release prints!*

Three cogent facts about APEC

1. **Image quality is not affected.** APEC takes its reading off the mirror shutter. There's nothing to obstruct the light path to the film.
2. **ND wedges keep it consistent.** The measured light is always in the center of the cell's response curve. Regardless of the ambient light level, it's always *measured* at the same intensity. Perfect accuracy.
3. **Easily installed in most 16BLs.** The APEC system is mounted in the 16BL's door. If your serial number is 50701 or higher, you can have a new door fitted, with APEC built in.

APEC AT WORK:

Arena staff changed lighting without any warning — in mid shot!

Shooting a Jesus Movement rally at the Los Angeles Sports Arena, film-maker Roger Boller arranged the light levels ahead of time with the arena's staff. And before the crowd arrived, he took hand-held readings at various points in the stadium.

But when the rally began, its producers repeatedly lowered the lights for prayers, and raised them at dramatic moments, without warning—often in mid-shot! Mr. Boller just had to follow it from camera position with his APEC meter. *Every foot was perfectly exposed.*

For a free APEC color brochure, please write to us at one of the addresses below; or call.



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FOR FREE BROCHURES ON OUR 16MM AND 35MM CAMERAS, WRITE TO ARRIFLEX COMPANY AT P. O. BOX 1050, WOODSIDE, N. Y. 11377; OR AT 1011 CHESTNUT ST., BURBANK, CALIF. 91502.

35 technical sessions. Three two-day workshops will be given in Laser Holography, Photoelasticity and Strain Gages. An exhibit of some of the latest products and techniques will be held simultaneously with the technical sessions.

The Inter-Society Color Council will hold its 42nd Annual Meeting 30 Apr.-1 May at the Statler-Hilton Hotel in New York. Nine papers will be presented at morning and afternoon sessions on 1 May on topics in color science. The Godlove award will be presented on 1 May at the banquet. The banquet speaker will be Ray Kicklighter, Head of the Learning Systems Laboratory of Eastman Kodak's Research Laboratories. He will speak on the use of color in education. Open meetings of the ISCC Problems Subcommittees will be held 30 Apr. There will be discussion of color specifications, color aptitude testing, fluorescence and color measurement, instrumentation, strength of colorants, metamerism, color transparencies, colorimetry in the graphic arts, color difference problems, color in the building industry and human response to color. Further information is available from Office of the Secretary, Fred W. Billmeyer, Jr., Dept. of Chemistry, Rensselaer Polytechnic Institute, Troy, NY 12181.

The University of Wisconsin—Extension, Dept. of Engineering, 432 N. Lake St., Madison, WI 53706, has announced the following summer programs: 7-11

May, Design of Optical Systems; 21-25 May, Minicomputers in Instrumentation and Control; 22-23 May, Fluid Power Controls and Systems Conference; 18-22 June, Biomedical Instrumentation; 9-13 July, Display Systems Engineering; and 23-27 July, Electron Microscopy.

Standards and the Education Consumer, a 90-page paperbound book consisting of a report on a two-day seminar sponsored jointly by the Educational Media Council and the United States Office of Education, is available from the Educational Media Council, 1346 Connecticut Ave., N.W., Washington, DC 20036, at a price of \$3.00 (\$2.50 for EMC members, including members of the SMPTE). The book contains the full texts of eight papers presented at the seminar—Raymond Wyman, "Standards for a Nonstandard World"; Herbert E. Farmer, "How Standards Are Developed"; William G. Harley, "The United States in International Standards Activities"; P. Kenneth Komoski, "Standards and Educational Effectiveness"; Don E. Warner, "Compatibility"; Roger W. Coomer, "Merits of the Marketplace"; Philip W. Tiemann, "Evaluation and Validation Considerations"; and Edwin G. Cohen, "Alternatives for Action."

An experimental holographic optical computer memory able to perform the full-cycle data processing operations of write, store, read and erase has been demonstrated at RCA Laboratories in Prince-

ton, N.J. The experimental optical system employs a laser, liquid crystals, electroacoustic deflectors and holograms stored on thermoplastics. It has been predicted that the new system could be "the forerunner of a new generation of mass memories equal in capacity to, but 1,000 times faster than, the largest disc system presently achieved," the announcement stated.

The RCA memory is based upon the ability of holograms to store large quantities of data in a small space and upon the electronic speed at which light from a laser can be deflected and modulated. It can combine in one unit features and advantages of the two types of data storage devices—internal and peripheral memories—commonly used in data processing operations. Internal memories, consisting of the core and semiconductor types, are located within the computer mainframe. They are fast, but there is a limit to the amount of data they can store economically. When large quantities of data must be stored, peripheral units external to the computer—such as disc, drum and magnetic tape systems—are used. They are necessarily large; because they rely upon mechanical operation, they are relatively slow.

The memory stores data in holograms formed by a laser beam on a thermoplastic storage medium. En route to the storage medium, the beam strikes liquid crystal cells which can be controlled electronically to scatter light or to be transparent. The cells introduce digital information into the

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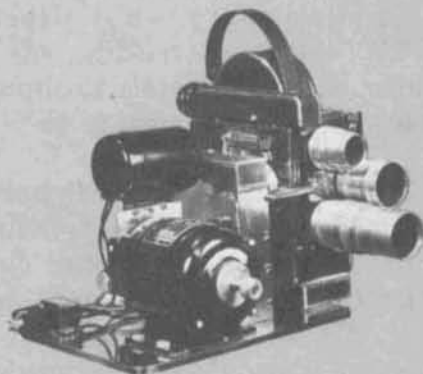


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 ★ 100 ft. film capacity for 2¾ minutes of recording; 6-Volt DC Converter or 115-Volt AC operation. ★ \$1180.00 (and up).



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 ★ 600 ft. film capacity for 16½ minutes of recording. ★ \$1820.00 (and up) with 30 day money-back guarantee.



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 ★ 1200 ft. film capacity for 33 minutes of recording. ★ \$6425.00 (and up) complete for "High-Fidelity" Talking Pictures.



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FILMAGNETIC — Finger points to Magnetic pre-stripe on unexposed film for recording lip-synchronized magnetic sound with your picture. Can be used with all Auricon Cameras. ★ \$1325.00 (and up).



TRIPOD — Models FT-10 and FT-10S12... Pan-Tilt Head Professional Tripod for velvet-smooth action. Perfectly counter-balanced to prevent Camera "dumping." ★ \$406.25 (and up).

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If it's profit you're after in the production of 16 mm Sound-On Film Talking Pictures, Auricon Cameras provide ideal working tools for shooting profitable Television Newsreels, film commercials, inserts, and local candid-camera programming. Now you can get Lip-Synchronized Optical or Magnetic Sound WITH your picture using Auricon 16 mm Sound-On-Film Cameras. Precision designed and built to "take it."

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October 6, 1972

Mr. Norman L. Bleicher
Operations Manager
Victor Duncan, Inc.
11043 Gratiot Avenue
Detroit, Michigan 48213

Dear Norm:

Thank you for your letter of September 13, 1972.

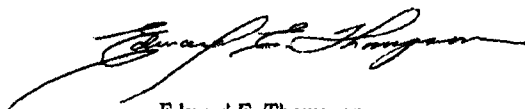
You mention four areas for information relative to news work, using the CP-16/A, and they are as follows:

1. I feel that the CP-16/A is the best news camera on the market today. All of our news reporters feel the same way. It is extremely portable and we are able to shoot pictures much as we do with our Bell & Howell or Bolex cameras.
I have designed a small "U" shoulder pod of aluminum, padded with rubber, for use with the camera. The light weight of the camera, "U" pod and magazine make for quick and easy shooting, with comfort and ease for the cameraman as well.
2. As to use under adverse conditions, the camera has performed very well in inclement weather and I see no reason why it should not be the same in the winter as in the summer.
3. Service has been the best. Both you and Cinema Products Corporation have been in close touch with us and we are very pleased with the quick service we are getting.
4. News of Interest: In addition to the shoulder pod, I have installed a Sennheiser MKH-815 shotgun microphone, with a shock-proof mount, on top of the CP-16/A camera. The camera is so quiet that the 815 mike does not pick up any camera noise. With no cables and no power pack to get in the way or restrict your movement, the cameraman can really move in and around, getting the right position to get the best picture. He becomes a part of it all.

The enclosed photographs may be of some help to explain the "U" pod and the shotgun mike. The cameraman is Larry Sales, a reporter here at WAVE News. The other guy holding the camera and mike happens to be me.

In summing up, I am happy to say that we are very pleased with our two CP-16/A cameras (even the price) and I am looking forward to getting another in the very near future.

Sincerely yours,



Edward E. Thompson
Newsfilm Director
WAVE-TV

EET:jk
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Mr. Edward E. Thompson
Newsfilm Director
WAVE-TV

A Cameraman's Kind of Camera.



Mr. Larry Sales, TV-Newsfilm Cameraman, WAVE-TV

To arrange for a demonstration of the all new CP-16/A (with Crystasound recording system) or CP-16 cameras, contact your local professional sales/rental dealer.

CP-16

CP-16/A

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laser beam in the form of tiny areas that are dark (where the cells are scattering) and light (where they are transparent). This pattern of darkness and light, recorded in the hologram, corresponds to the "zeros" and "ones" of the binary code. Once the data is stored in the hologram, it can be retrieved by passing the laser beam through the hologram. The beam projects the holographic information onto a light-sensitive array which "reads" the optical data and converts it into electronic signals. The laser beam, in both writing and reading the data, is directed by electro-acoustic deflectors.

In the experimental holographic memory, the array is connected to a panel of lights to determine if the data have been stored and read out correctly. To erase the data in a hologram heat is applied to the thermoplastic storage medium. A new hologram with new information can then be written in its place.

Business Management & Counseling Corp., Suite 105, Airport Plaza, 2041 Business Center Dr., Newport Beach, CA 92660, is a new firm formed to provide professional management counseling. It is structured to handle the business and financial affairs of the individual or to provide specialized and diversified assistance to top management in corporate planning, special projects, acquisitions and mergers as well as company business and financial management. President of the new firm is E. B. McGreal.

Carter Equipment Co., manufacturer and distributor of professional motion-picture laboratory equipment, has moved to new and larger quarters at 1050 W. Florence Ave., Inglewood, Calif. The new facilities contain the general offices, sales and display room showing both new and used professional laboratory equipment and complete manufacturing facilities, including electronics laboratory, darkroom and screening room.

Eclair Corp. of America, formerly of Valley Stream, N.Y., has moved to 62 W. 45 St., New York, NY 10036. The company will occupy the entire sixth floor at that address.

The Gotham group of companies, comprising Gotham Audio Corp., Gotham Export Corp. and Telden Sales Corp., formerly located at 2 W. 46 St. in New York, has moved to the Gotham Building, 741 Washington St., New York, NY 10014. Directly across the street from Westbeth, an artists housing development, formerly Bell Telephone Laboratories, it is in one of the New York City Landmarks Areas under the supervision of the Landmarks Commission. A brick building, it was built in 1912. There is a floor area of more than 8,000 ft² with a loading dock, recreation roof and a studio/auditorium.

Raymond Eynard, Technical Manager of Agfa-Gevaert's Motion Picture Dept., has been appointed Public Relations Vice-President of the Soc. of Photographic Scientists and Engineers to fill the unexpired term of Russell P. Cook, of Polaroid Corp., ending 30 June. Mr. Cook is on a leave of

absence. Mr. Eynard has been nominated to continue in the same post for the two-year term beginning 1 July.

Keith Gaylord has been appointed Manager of Corporation and Agency Sales for Teletape Corp., 321 W. 44 St., New York, NY 10036, it was announced by Richard E. Riedel, Chairman of the Board. His main responsibilities will be for the Real-Time Communications Div. RealTime Communications has been announced as an innovative approach to communicating effectively throughout a corporate structure via the videotape cassette.

Eastman Kodak Co. has announced two appointments in the Paper Service Div. of the paper manufacturing organization at Kodak Park. William R. Hammond and Willis Stockdale were appointed Technical Associates, Product Development. Both men were formerly Senior Engineers, Product Development. Mr. Hammond has been with Kodak since 1956 and Mr. Stockdale joined Kodak in 1962.

Carlos H. Elmer has been appointed Sales Representative for L-W Photo, Inc., 15451 Cabrito Rd., Van Nuys, CA 91406. He was formerly with the Photographic Instrumentation Div. of Traid Corp. In his new post he will be responsible for the Southwestern United States. His headquarters will be in Scottsdale, Ariz. His primary concern will be the introduction of L-W's new motion-picture film analyzer, designed for use in conjunction with L-W projectors to produce "x" and "y" plots on a projected image. He will also represent L-W in the sale of the flickerless stop-motion analytical film projector and related equipment.

Eastman Kodak Co. has appointed Robert F. Motter and Donald J. Trevo Senior Research Laboratory Heads in recognition of outstanding scientific skills and extraordinary contributions to the company. Mr. Motter has been with Kodak since 1958. In 1969 he was appointed Laboratory Head for the Negative-Positive Color Systems Laboratory. Mr. Trevo has been with Kodak since 1949. In 1960 he became a group leader in the Special Research Laboratory and in 1968 he was appointed a Laboratory Head.

E. Carlton Winckler, a noted authority on color television production, has joined Imero Fiorentino Associates, Inc., 10 W. 66 St., New York, NY 10023, as Senior Production Consultant. He was formerly Director of Production Standards and Practices at CBS where he worked for 23 years. In his new post he will act as advisor to the company's Dept. of Studio/Production Systems and he will also be the Head of the new Training and Seminar Div.

Norwood L. Simmons has been appointed special consultant to the marketing staff of Arriflex Co. of America, 25-20 Brooklyn-Queens Expwy. West, Woodside, NY 11377. Dr. Simmons recently retired as As-

sistant Vice-President and General Manager of the Eastman Kodak Motion Picture Div. He resides at 1960 Camino Loma Verde, Vista, CA 92083. He will be frequently in contact with industry connected people "specifically on the West Coast," the announcement stated.

Maurice G. Wolfe has been appointed Executive Vice-President and General Manager of Hervic Corp. Cinema Beaulieu, 14225 Ventura Blvd., Sherman Oaks, CA 91403. Mr. Wolfe was formerly Marketing and Sales Consultant to such firms as Technicolor Corp., Wein Products and Photo Plastics International. In his new post, in addition to other managerial functions he will personally direct and control the company's national sales force which services some 600 photographic dealers.

John G. Rogers has been appointed Vice-President of Marketing for Producers Color Service Inc., 2921 E. Grand Blvd., Detroit, MI 48202, it was announced by Ray Balousek, President, who noted that the appointment is in line with the firm's expansion program. Mr. Rogers is a retired U.S. Air Force Colonel who served in USAF Headquarters as Chief of Air Force Training Film and TV programs. Recently, he has been actively engaged in the industrial and education audio-visual field.

Joseph Bluth has been appointed Vice-President of the Videotape Operation at Consolidated Film Industries, 959 Seward St., Hollywood, CA 90038. He will continue as Vice-President of Republic Communications. Announcement was made by Mel Sawelson, CFI Executive Vice-President, who noted that Mr. Bluth, having completed a study of the communications industry for Republic Communications will now assume a key role in the management of the CFI Videotape Operation.

Leonard Adler has been appointed Vice-President of Marketing for the Technicolor Audio-Visual Systems Div., 299 Kalmus Dr., Costa Mesa, CA 92627. Before joining Technicolor, Mr. Adler was Vice-President of Marketing for Transaction Systems, Inc., in Sunnyvale, Calif. In his new post he will have complete responsibility for the domestic and international marketing of the division's super-8 cartridge-loading projectors and related products.

Three new regional managers have been appointed for Altec Corp., 1515 S. Manchester Ave., Anaheim, CA 92803, it was announced by Robert Rufkahr, Director of Sales. The new managers are Douglas Croft, Gerald Fagersten and Don Anderson. Mr. Croft will cover northern California, Nevada, Utah, Hawaii and Alaska. Mr. Fagersten will cover the Dakotas, Minnesota, Wisconsin, upper Michigan and northeastern Illinois. Mr. Anderson will cover New Mexico, Texas, Oklahoma and Louisiana.

John Turco has been appointed Manager, TV Division, MoviLab-New York, 619 W. 54 St., New York, NY 10019, it was announced by Peter Cardasis, Vice-President of Sales. Mr. Turco is an industry veteran of 20 years, the announcement stated.

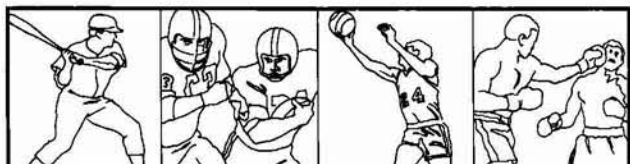
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You can add impact to live rock and concert performances by including a large screen television monitor so the audience can see both the live action and dramatic video close-ups of the performers.

You can have a full house and also accommodate overflow crowds by adding a large screen projector in another facility. Or, video tape the performance and project it at a later date, for another engagement.

You can advertise the use of your theatre to business and professional groups for conferences, seminars and presentations conducted with the use of video tape or live, closed-circuit television.

You can improve your "box office" in other new and exciting ways. There's no limit to the potential of this dramatic innovation in entertainment.

General Electric makes large screen video projection practical with the introduction of the PJ500 large screen color television projector. It is designed to provide high quality pictures on screens up to 20 feet wide.

GE's exclusive "single gun" single optical path system generates the complete range of spectral colors simultaneously. The resultant inherent color registration insures optimum results with both front and rear screen applications.

The projector's versatility includes the ability to display information from all standard video sources such as live camera, Video Tape and Video Cassette, Off-Air TV reception, Closed-circuit TV, Data Network and Video Film Chain inputs.



GE large screen television projectors are warranted for one year to be free of defective materials or workmanship. The "single gun" light valve and projector lamp are warranted for 1000 hours or one year on a prorated basis.

If you want to learn more about the PJ500 Color Projector, or its monochrome counterpart, the PJ700, call: (315) 456-2562 or write to:

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Syracuse, New York 13201

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GE large screen television projectors