



Section Meetings

Australia, 29 Nov. — The Annual General Meeting was held at the Shore Hotel in Artarmon N.S.W. with 36 members attending. The Chairman presented the Annual Report of the Society's activities in Australia during 1976 and outlined proposals underway for implementation during 1977. The Secretary-Treasurer had prepared a financial report for presentation at the meeting prior to his departure overseas and this was read to the meeting. The Chairman then presented a report on discussions held with senior officers of the Society during the 118th Conference and he outlined the decisions reached on various items. The Chairman also reported on ongoing preparations for the joint SMPTe and ACS Seminar to be held in March 1977 and all members of the Australia Section were urged to attend.

The need for members to support the Voluntary Capital Fund Program was emphasized. — Donald D. Kennedy (Chairman), Australian Commonwealth Film Unit, P.O. Box 46, Lindfield, N.S.W., Australia.

Dallas/Fort Worth, 5 Jan. — The meeting was held at the WFAA-TV Studios in Dallas with an

attendance of 115 members and guests. The program consisted of a survey of "what's happening" in ENG in the Dallas/Fort Worth market. The program began with a display of the WFAA-TV Electronic Newsgathering van. Lamar Robinson, Assistant Director of Engineering for WFAA-TV, discussed ENG and its technical applications. He also presented a synopsis of methods and equipment used by the local stations, followed by a discussion on the transport of ENG signals back to the station via microwave links with the aid of tall downtown buildings and omnidirectional antenna systems. He also discussed the use of mini microwave systems for cable elimination, aiming procedures for the main microwave, and storage of equipment in the van.

An intermission allowed an examination of KXAS-TV's ENG van (brought in after the meeting started). Tom Bedford, Chief Engineer of KXAS-TV answered questions on the station's van and systems.

The meeting resumed with a presentation by Dave Goldberg, Chief Photographer for WFAA-TV. He discussed the stations that are using ENG, why they are using it and the ad-

vantages and disadvantages of ENG. He demonstrated the use of the early single-tube cameras and discussed the lighting difficulties and physical problems associated with ENG. He then showed today's state-of-the-art three-tube, broadcast-quality camera. He then provided a side-by-side demonstration of the cameras vs high-speed color film.

Goldberg also discussed WFAA-TV's editing procedures with special emphasis on the use of the two audio tracks available on the 3/4-in U-Matic format for control of narration and background sound, a concept similar to that used in multichannel film mixing. He also discussed the use of ENG equipment in documentary and production work along with integration of 16mm film in the same production.

Robinson joined Goldberg in a summation of the two presentations including a cost comparison of the two systems (newsfilm vs video ENG) over a long-term basis and current support of both systems. A lively question-and-answer period followed.

The meeting ended with members of the audience being taken on conducted tours of the WFAA-TV facilities.

This was one of the largest meetings on record of the Dallas/Fort Worth Section. It was attended by representatives from every station in the market along with regional representatives of stations from Oklahoma and West Texas. The meeting was well received by the audience; however there could be no applause because the live 10 o'clock news was in progress next door. — Paul F. Brown (Secretary-Treasurer), So. Baptist Radio TV Commission, 6350 West Freeway, Fort Worth, TX 76116.

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One self-contained unit, pre-wired and aligned at the factory. Less installation time – and *undivided responsibility*.

The traditional projector makers aren't trying to be mysterious. They don't quote their price for a sound and logical reason: Until a specific package is put together, they don't *know* what the price will be.

Components

Projectors have customarily been marketed as components, packaged by the installer. Sometimes he uses components from one brand only. More often, he takes components from several manufacturers, and puts them together.

Package

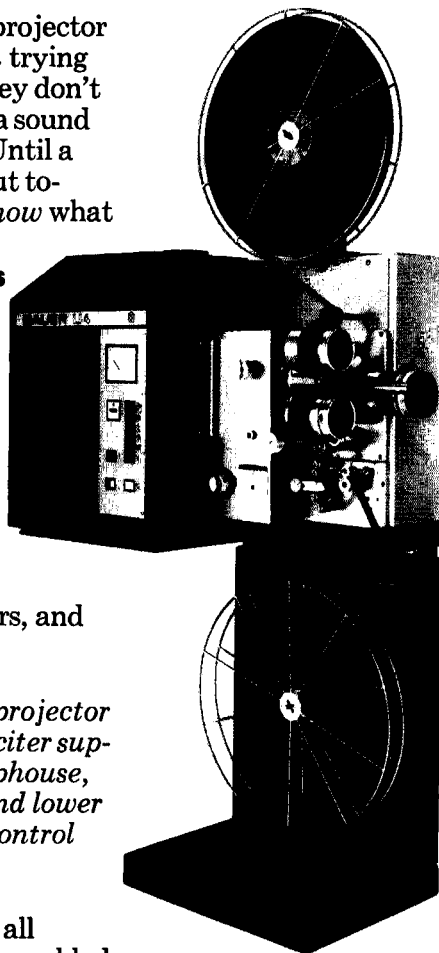
It's quite a list: *projector head, sound head, exciter supply, lens mount, lamphouse, changeover, upper and lower reel arms, pedestal, control switches, etcetera.*

One unit

With the BAUER, all those elements are assembled at the factory, so we know what the price is, right from the start. Who costs the most? We do, *at first* – but not by much. Here's why:

Wiring Cost

To wire a booth from scratch for two projectors costs about 30% less with



The BAUER U4. BAUER's standard 35mm projector, it is designed as one integrated unit, fully aligned mechanically and optically at the factory. Built-in 24 volt DC controls are pre-wired for automation. The U4 works with any U.S. made 3 or 4 platter system, any amplification package, any lenses.

BAUER than with the traditional component rigs. For example: a BAUER needs only one 110 volt AC line. Each individual "components" projector needs up to five AC outlets, *plus* the wiring from there to the various components.

Assembly time

With the traditional rigs, the installer must put together *and align* the whole thing, in the booth. With the BAUER, that's not necessary. So BAUER saves you about 40% on non-electrical installation time.

Bottom line

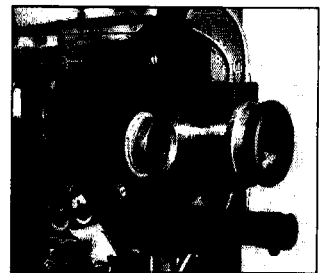
By the time you're ready to roll, the BAUER's initial cost is only 5% or 6% more. And there are savings to come:

Maintenance

The only maintenance required for the BAUER is to change the geneva movement's oil every six months. No gears to grease. BAUER uses steel-reinforced timing belts instead of gears.

Saving money

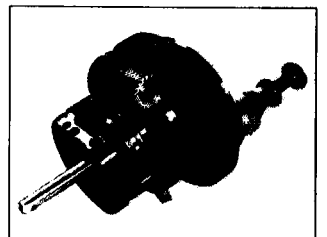
When gears wear out, it takes a specially skilled technician several hours to replace and align them. BAUER timing belts can be replaced by the projectionist in ten minutes – and they cost about a sixth as much.



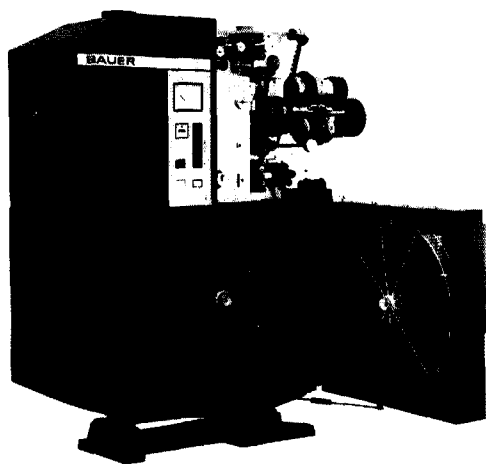
Optional automatic lens turret rotates on cue. Lens and aperture plate change simultaneously, are positively locked in register and focus.



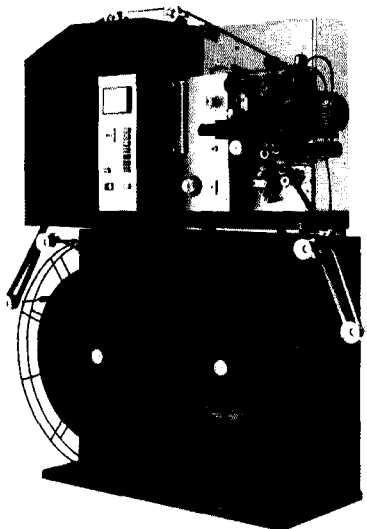
Curved film gate for flat field. Adjustable synthetic runner bands (as used by processing labs) smooth film path for longer print life.



For long wear, geneva movement is oversize (see 16-tooth sprocket) and sealed in oil bath. Shutter is driven directly from movement.



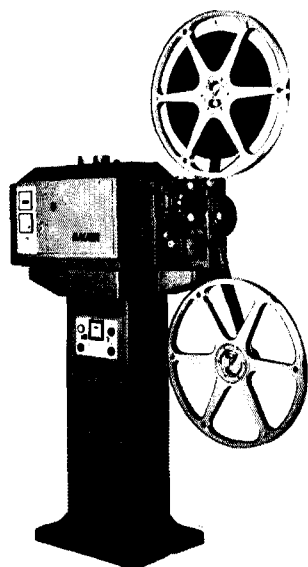
BAUER U3 accepts 35mm and 70mm film, 6,500 foot 35mm reels. Only 61 inches high, both reels in base, no lifting.



BAUER U5R accepts 35mm film, up to 10,500 foot reels. Can be rewound at 32 fps, without touching the film.

18 important BAUER features:

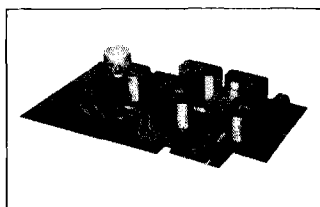
1. Three-lens manual rotating positive-lock turret, standard equipment.
2. Optional two-lens automatic rotating turret.
3. Manual three-format aperture plate.
4. Automatic format-change aperture plate.
5. Single-blade shutter rotates at twice normal speed, for 12% more light.
6. Shutter driven directly by geneva movement, so timing is automatically correct.
7. All sprocket shafts run in sealed ball-bearings.
8. Instead of gears, synchroflex timing belts drive geneva movement and sprockets.
9. Miniaturized solar cell with light-concentrating prism for cleaner sound.
10. Factory-aligned horizontal Xenon Module.
11. High-efficiency cold-light mirror reflects 15% more light.
12. Built-in control panel.
13. Built-in 24 volt DC power supply.
14. All functions activated by individual relays.
15. Plug-in circuit boards.
16. Projector pre-wired for automation.
17. Weight-regulated takeup.
18. Built-in film-break sensor and film-end switch, standard equipment.



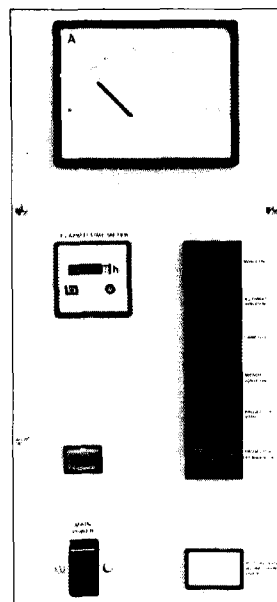
16mm theater unit: 900W or 1600W horiz. Xenon, geneva movement, 5,000' reels, optical/magnetic.

Modern design

For example: The single-blade shutter rotates at twice normal speed, delivering 12% more light. Driven directly from the geneva movement, its timing never needs adjustment. The horizontal Xenon Module (bulb and cold-light mirror) is aligned with the projector's optical axis *at the factory*.



New electronics: plug-in relay control board.



Built-in control panel is powered by its own 24 volt DC power supply. Each built-in relay is activated by its own push-button. Automatic control is achieved simply by plugging in the required relay boards.

Undivided responsibility

Each part of a BAUER projector is designed at the factory to work with the other parts as one unit. Every BAUER projector is tested at the factory *fully assembled*. And the entire projector is guaranteed by BAUER. *Undivided responsibility.*

Making sense

The modern projector is a complex precision instrument. Nowadays, in our opinion, it makes no sense to buy the pieces and build it yourself. We hope you agree.



Miniature solar cell permanently fused to light-gathering prism. Coherent light beam for clean sound, less ambient light "noise."

History lesson

Television did not engulf Europe until the late fifties—ten years later than here. BAUER, a German company, re-designed its projectors in the early sixties. Most U.S. made projectors date from the thirties and forties — *Before Television.*

New technology

So BAUER has benefited from the new technology developed since World War Two. Electronically, mechanically and optically, these are the most *advanced* projectors on the market.



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Hollywood, 14 Dec. — The meeting was held in the Walt Disney Studios with an attendance of 535 members and guests. A plaque was presented to Robert Gibeau, Studio Manager of Walt Disney Studios, by the Hollywood Section in recognition of his services and in acknowledgment of his donation of studio facilities and selection of outstanding films during the last six years. Following the presentation ceremony, Don Kloepfel introduced the incoming officers and manager for 1977.

Highlight of the evening was a pre-release showing of *The Littlest Horse Thieves* to a greatly appreciative audience. — Warren Strang (Secretary-Treasurer), Hollywood Film Co., 956 Seward St., Hollywood, CA 90038.

New England, 8 Dec. — The meeting was held at the Massachusetts Institute of Technology with an attendance of 30 members and guests. An informal presentation by Charles Paton of MIT on the changing technical needs in broadcasting and industrial television emphasized the growing need of technical education in our fast-changing technology. Many examples of current problems, both broadcast and non-broadcast, which are affecting today's technical standards were openly discussed. A vigorous exchange of opinions and solutions to the problems followed Paton's 75-min talk. Many ideas were presented in the question-and-answer session, leading to a promise of a follow-up meeting in the near future. A complete tour of the MIT video facilities was provided. — Paul R. Beck (Program Chairman), The Foxboro Co.; home address: 80 Court St., Mansfield, MA 02048.

New York, 14 Dec. — The meeting was held at the United Engineering Center with an attendance of 130 members and guests. Two Walt Disney films were shown. The first, *The Old Mill*, was one of the first examples of the synchronization of music and cartoon action. It also was the first production for which a multiplane camera was used. The second film, *The History of Animation* showed significant developments in animation from *Steamboat Willy* to computers.

Paul Cicarelli of Canon USA provided a presentation on various technical aspects of lens design and performance featuring a 3-screen multimedia display. The audience was provided with a considerable amount of useful information and appreciation for the smooth and professional production was expressed. — Richard S. Marcus (Reporter), Rombox Productions Corp.; home address: 1380 Riverside Dr., New York, NY 10033.

Ohio, 9 Dec. — The meeting was held at the Biomedical Communications Department of the Ohio College of Podiatric Medicine in Cleveland with an attendance of 38 members and guests. The speakers were Edward Dell, Director of the Department, and Alfred Sinder of Dayton Communications Corp. Dell described the planning and design of the department from the initial need to communicate, through the defining and refining of the materials to be communicated, to the determination of the methods to be used to communicate.

Following questions from the audience Sinder described the method of creating and assembling an audiovisual system. After another lively series of questions the audience adjourned to the studio, control room and classrooms for demonstrations and hands-on sessions with the Arvin/Echo Color Discassette Recorder, the Convergence ESC-1 Editing System, Video Memory High-Band Recorders and other equipment. The

meeting was followed by a lively discussion period. — Jon Carter (Secretary-Treasurer), Movie Makers, Inc., 4614 Prospect Ave., Cleveland, OH 44103.

Pacific Northwest, 10 Dec. — The meeting was held in the studios of KGW-TV in Portland, Ore., with an attendance of 60 members and guests. The participants in the program represented Portland TV stations KGW and KATU. Each station has one ENG van in operation yet each has made a different approach to the design of the vans and the ENG system. Andy Jordon of KGW and Bill Vandermay of KATU described the respective ENG systems. Both did an excellent job of describing the equipment and explaining the set up of their ENG operation.

A panel discussion followed the presentations. On the panel from KGW were Tyron Mortensen, Chief Engineer; Dave Tinkham, Engineer; and Hal Lessor, News Cameraman. KATU was represented by Alan Anderson, Chief Cameraman; and Charles Brechlin, News Director. Questions from the audience were answered by the panel members and lively discussions were initiated.

Following the panel discussion the audience was invited to get a closer look at the vans and to tour KGW's electronic editing facilities. — C. Eugene Newcomer (Secretary-Treasurer), Pacific Northwest Bell, 1200 Third Ave., Seattle, WA 98101.

Philadelphia, 9 Nov. — The meeting was held at the studios of WPVI-TV in Philadelphia with an attendance of 45 members and guests. The speakers were Mike Paladino of General Electric; George Anderson of Tektronix; and Anthony M. Fiori of Spectra-Vision Corp.

Paladino presented a paper entitled "NTSC Color Control Comes Full Circle" to explain General Electric's VIR "broadcast controlled" color system. Automatic color control in the TV receiver is achieved by using vertical reference signals (VIR) originated by the broadcaster. The system does this by detecting and processing a vertical reference signal transmitted on the 19th line of each field of composite video information. The VIR, used for phase and amplitude control, results in closed-loop color fidelity in the NTSC color system. Two GE TV receivers were used for a side-by-side demonstration. The VIR signal was transmitted to one receiver by equipment supplied through the courtesy of Tektronix, Inc. A briefing on the equipment used to transmit the VIR signal was given by Anderson. Demonstrations were given both with and without VIR adjusted signals. The VIR adjusted signals showed a definite improvement in picture quality and (as might be expected) showed that the worse the picture degenerated before VIR, the more significant the improvement seen.

Fiori presented an imaginative videotape illustrating the results of test shooting various types of super-8 film in a variety of different production situations. He discussed the problems encountered and the results gained in electronically editing A&B roll super-8 film from a Kodak Videoplayer to ¼-in videocassettes. He commented on and illustrated the techniques of back space video editing applied to super-8 production. The videotape provided graphic proof that the combination of super 8 and videotape can be a viable tool in film production. — Jonathan W. Flint (Secretary-Treasurer), DBS Films Inc.; home address, 266 Minor St., Malvern, PA 19355.

Philadelphia, 7 Dec. — The meeting was held at the Valley Forge Sheraton through the



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courtesy of DBS Films, Inc., with 40 members and guests in attendance. Garrett Brown, President of the Moving & Talking Picture Co. of Philadelphia, showed the Steadicam which he invented and refined after several years of trial and error and much money spent along the developmental process. This revolutionary new camera stabilizer system, now being developed and marketed by Cinema Products Corp., brings to the filmmaker the capability of employing techniques which previously would have been not only difficult to achieve but economically unfeasible for many commercial and industrial film budgets. Using the Steadicam the cameraman can walk or run with the camera (16mm, 35mm or video) handheld and end up with what ultimately looks like a dolly shot.

Film segments from *Rocky* and *Marathon Man* in which the Steadicam was used were shown to illustrate the remarkable effectiveness and rapid popularity of this new creative tool. A hands-on demonstration of the Steadicam followed with rapt interest from the enthusiastic audience.

Jay Silber, President of DBS Films, Inc., of Valley Forge, who hosted the meeting presented a paper entitled "Universal Tape Sync," explaining that integrated circuit technology and basic principles of videotape speed control can be used to save tens of thousands of dollars in track mixing and dubbing equipment. Using the Universal Sync System the filmmaker can maintain perfect sync in mixing tracks on ¼-in tape with relatively inexpensive but high-quality equipment. The system described by Silber employs a Magnasync record/playback 16mm track machine and a four-track TEAC recorder. Track 4 of the TEAC is reserved for pilot tone recording and playback while the other three tracks are being used for soundtracks from location recording. Each is recorded exactly in sync with the other. Later, the three can be mixed together and recorded onto fresh 16mm mag track stock on the Magnasync. In mixing, each magnetic sprocketed track is dubbed over onto one of the blank tracks of the TEAC. The Universal Sync corrects for capstan slippage by comparing the pilot from track 4 to the ac line and then feeding the TEAC capstan an instantaneous correction frequency that makes up for any slips or tugs or pulls that would throw the TEAC out of sync. Silber noted that Universal Sync had been developed by Fred Majewski of WHYY-TV, Wilmington, Del.

A tour of DBS Films sound facilities followed with Silber describing how the system operates and how it is used to accomplish nearly all motion-picture sound requirements. — Jonathan W. Flint (Secretary-Treasurer), DBS Films, Inc.; home address: 266 Minor St., Malvern, PA 19355.

Rochester, 8 Dec. — A joint meeting with the SPSE was held in the auditorium of Eastman Kodak Research Laboratories with an attendance of 350 members and guests. The speaker was Carl Shrader, assisted by Milton Ford, both of the National Geographic Society. A brief history of the National Geographic Society was given by Shrader, followed by an in-depth description of the development of a picture story from its original concept to the final publication. — Burton L. Griswold (Program Chairman), Eastman Kodak Co., Kodak Park Bldg. 67, Rochester, NY 14650.

Rocky Mountain, 14 Dec. — The meeting was held at the facilities of Western Service & Supply Co. in Denver with an attendance of 30 members and guests. The audience enjoyed a

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special screening of a first-run feature film as part of a special year-end social meeting. The film was shown in the screening facilities of Western Service & Supply Co. through the courtesy of the Manager, Bob Tankersley. — C. R. Dalquist (Secretary-Treasurer), Del Calzo & Associates, 300 Speer Blvd., Denver, CO 80203.

Toronto, 7 Dec. — The meeting, held jointly with the Audio Engineering Society, was held in Ryerson Institute's Learning Resource Centre with an attendance of 150 members of the two organizations and their guests. The meeting opened with a film, *The Soundman*, followed by the presentation of a paper by Bill Raventos of Electro-Voice on "Electro-Acoustic Transducers." Raventos explained that the best way to learn how to use microphones properly was first to learn how they work. He discussed the basic principle of sound pressure on a diaphragm and then described briefly the operation of dynamic, crystal or ceramic, ribbon and condenser microphones. He explained directional characteristics, providing demonstrations and presenting selected passages from a previously recorded tape.

Raventos then went on to discuss the proper placement of microphones for the best results. The simplest example was the detrimental effect that can result from using two microphones on either side of a podium. When the speaker moves slightly from side to side there will be phase cancellations of the higher frequencies. The best arrangement, he said, is to place a single microphone in the middle. Raventos then explained the placement of microphones for musical groups and orchestras which he demonstrated by means of taped passages. The loudspeaker is the end of the sound reproducing chain, Raventos noted, adding that although curves for loudspeakers tend to be shown as relatively flat in frequency response, these curves are usually given only for the "on" axis; "off" axis curves can be very different indicating that loudspeakers can be the weak link in the chain. The efficiency of the loudspeaker, he said, can have considerable bearing on the power required from an amplifier to produce a given sound pressure level, adding that many people have excessively high-powered amplifiers to feed low-efficiency loudspeakers. He pointed out that it would be much better to have more efficient speakers and much less power. — Ray Brule (Secretary-Treasurer), 3M Company, 790 Wellington St., London, Ont, Canada.