

Advance Program

This Program contains the most accurate and complete information possible at publication time, listing papers within each individual session. Although the sessions as described here are firm, some papers may be omitted or rearranged before the Conference. Any questions about specific papers or sessions should be addressed to Society Headquarters, Att: 113th Conference — Janet H. Hruska, Conference Program Secretary, (914) 472-6606; or *Program Chairman* Hartwell T. Sweeney, % Eastman Kodak Company, 1901 W. 22 St., Oak Brook, Ill. (312) 654-5411. Questions regarding the Symposium should be directed to Donald P. Buckelew, % Battelle Memorial Institute, 505 King Ave., Columbus, OH 43201, (614) 299-3151. The Final Program, listing titles of papers, will be available ten days before the Conference from Society Headquarters. The Synopses Booklet will be available at the Conference.

SUNDAY — April 8

REGISTRATION, Noon to 5:00 p.m.

WINE & CHEESE PARTY — Evening
Courtesy of Eastman Kodak Co.

MONDAY MORNING — April 9

REGISTRATION, 8:00 a.m.

LABORATORY PRACTICES I

Estar Polyester-Base Eastman Color Print Films
F. J. Kolb, Jr., *Eastman Kodak Co., Rochester, N.Y.*

A 16mm Color Location Laboratory
J. Lampert Levy, *Newsfilm Laboratory, Inc., Hollywood, Ca.*

The Optical Design of a Continuous Optical Reduction Printer
Ray Lambrecht, *Karl Lambrecht Corp., Chicago, Ill.*

Computerized Printer and Process Control — Part II: Printer Control
Manfred G. Michelson and Fred J. Scobey, *DeLuxe General, Inc., Hollywood, Ca.*

Projection Practice — Contemporary Film Handling in the Booth
Donald A. Helguson, *Chicago, Ill.*

GET-TOGETHER LUNCHEON — Noon

Guest Speaker: Thomas P. Curtis, *Chairman of the Board, Corp. for Public Broadcasting and Vice-President, Encyclopaedia Britannica*

MONDAY AFTERNOON

LABORATORY PRACTICES II

(Concurrent with Motion Pictures and Television in Education)

New Approaches to Solving Static Problems in Photographic Film
Robert J. Kunz, *3M Company, St. Paul, Minn.*

Improvements in Additive Color Printing on Reversal Films with Narrow-Band Filters
Walter Stoye, *Hessischer Rundfunk, Frankfurt, Germany*

Modifying Helical-Path Transport to Obtain Tracking Improvements
Robert I. Anderson, *Eastman Kodak Co., Rochester, N.Y.*

Potential Economic Effect of Public Law 92-500 ("Zero Discharge" Law) on the Motion Picture Processing Industry
Thomas N. Hendrickson, *Computerized Pollution Abatement Corp., Leicester, N.Y.*

Variable-Function Screening-Room Counter System

W. D. Carter, *Carter Equipment Co., Inglewood, Ca.*;
Francis Coppola and Bill Neil, *Francis Coppola Productions*

Bleach Fixes Used in Color Photography

Max Kaufman, *L. B. Russell Chemicals, Long Island City, N.Y.*

MOTION PICTURES AND TELEVISION IN EDUCATION (Concurrent with Laboratory Practices II)

A Comparison Between the Job Requirements Determined by the Motion-Picture Industry and the Film-Production Training Provided by Colleges and Universities in the United States
John L. Kallas, *AT&T Longlines, New York, N.Y.*

An Architectural-Design Project Related to University Motion-Picture Production
Donald I. McKeown, *Dept. of Architecture, Iowa State University, Ames, Ia.*

Personalized Learning in Physical Education — A Systems Approach
Robert Shrader, *Omaha Public School System, Omaha, Neb.*

Station Engineering-Staff Contributions to a Television Production Curriculum
George Wilson, *Dept. of Telecommunicative Arts, Iowa State University, Ames, Ia.*

Computer Animation — A Tool for Creative Teaching
J. W. Nilsson, *Dept. of Electrical Engineering, Iowa State University, Ames, Ia.*

An Integrated-Circuit Crystal Oscillator and Speed Strobe for ¼-in Portable Synchronous Recorders
Tomlinson Holman, *LabSound, Champaign, Ill.*

3-D X-Ray Perception Learned by a 2-D Film System — The Living Skull
Arthur Charles Probst, *Cybern Film Systems, Chicago, Ill.*

TUESDAY MORNING — April 10

TELEVISION/CATV I

New Developments in Computer-Controlled Television Station Switchers
M. W. S. Barlow and George Young, *Canadian Broadcasting Corp., Montreal, P.Q., Canada*

The TK-28 Telecine Camera Light-Control System
H. G. Seer and Lucas J. Bazin, *RCA, Camden, N.J.*

Color-Balance and Density Variations of Color Films Intended for Television — 2nd Report
Daan Zwick, *Eastman Kodak Co., Rochester, N.Y.*

PCM Encoded NTSC Color Television Subjective Tests
A. A. Goldberg, *CBS Laboratories, Stamford, Conn.*

Rural Telecommunications
Donald P. Buckelew, *Battelle Memorial Institute, Columbus, Oh.*

Introducing the new Bell & Howell Panel Printer. A new design, with added features, and more reliability.

Bell & Howell means reliability and technical excellence in panel printers. So with a reputation like that going for you, any new product we announce must deliver more versatile performance and even greater reliability.

Here's what's new.

Our new Bell & Howell Panel Printer has a number of important new features and design changes.

Like film pull-back to minimize short-end losses.

Sections printing capability.

Plus a new film feed and take-up system for smooth, firm, 3,000-ft. film winds—even at printing speeds of 480 FPM.

Finally, Model "C" compatibility of tapes, leaders and cues.

Some things we aren't about to change.

For example, the reliable solid-state electronics in Bell & Howell Panel Printers.

The precision film handling system.

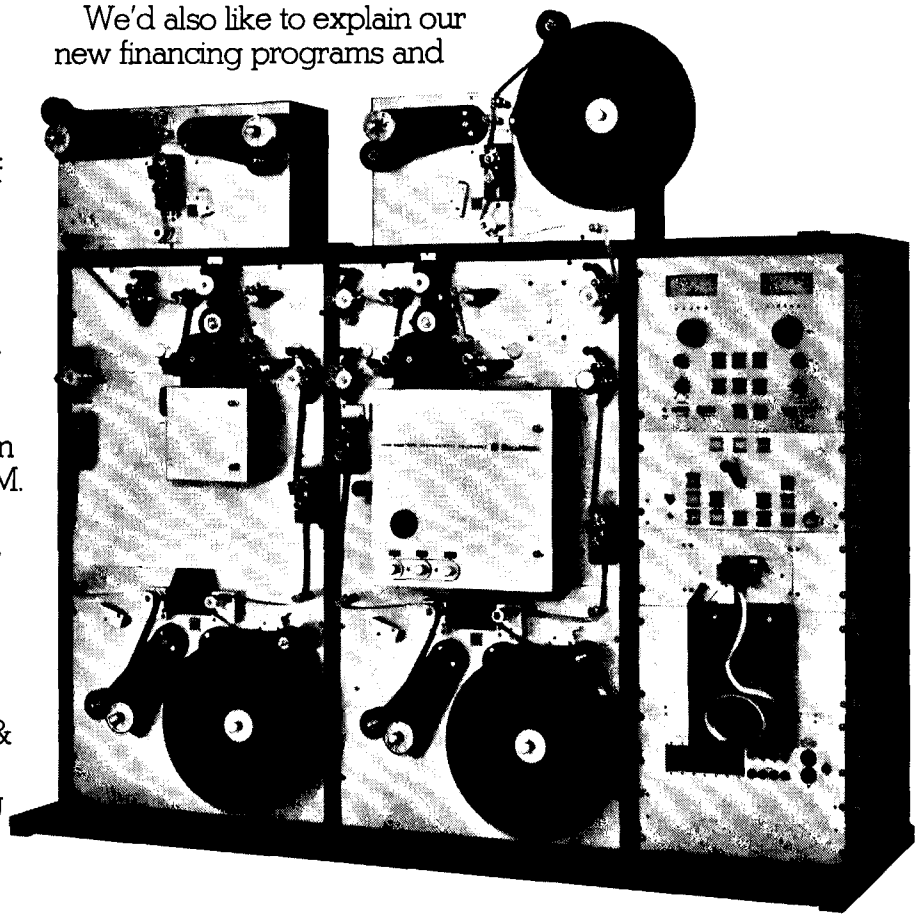
And easy printer maintenance.

If you're planning to be at the 113th SMPTE Conference in Chicago, stop in and see our new Panel Printer. We'd like to give you a demonstration.

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The new Bell & Howell Panel Printer. It's a lot like our other panel printers. Only better.



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Fred Gonzalez
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7100 McCormick Road
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312-673-3342



“Over the past few years the ‘smart money’ folks have counted out all of us in the picture business. Again!

“Well, don’t you believe it. Sure, times have been tough. We’ve had to cinch up our belts a bit and take fewer calls.

“But we’re bouncing back—just as we did when the doomsayers said that television was going to be the death of us. Or that the consent decree spelled the end of the industry.

“Our technicians, directors, actors, producers are all breaking their tails to reach larger audiences with better pictures. The companies are learning to do more with less and seem eager for new projects. They’re implementing these with hard cash.

“There seems to have been a change of mood, a feeling that we’re definitely on the upswing.

“So let’s not let ‘them’ talk us down. We’re part of a vital, growing business. It begins to look like it’s going to stay that way.”

Charlton Heston. Actor and Chairman of the American Film Institute.



EASTMAN KODAK COMPANY

Atlanta: 404/351-6510/Chicago: 312/654-5300/Dallas: 214/351-3221/
Hollywood: 213/464-6131/New York: 212/262-7100/San Francisco:
415/776-6055/Washington, D.C.: 202/554-9300.

Six Months of Super 8 in Broadcasting: A Progress Report
Chuck Cyberski, *KDUB-TV, Dubuque, Ia.*

TUESDAY AFTERNOON

TELEVISION/CATV II

(Concurrent with Specialized Non-Video Display Systems)

Digital Transmission for Cable Systems

Joseph H. Vogelmann, *Laser Link Corp., Woodbury, N.Y.*

The Bivicon Tube — A New Double Vidicon

Stefan A. Ochs, Richard L. Spalding and Eduard Luedicke,
RCA Corp., Lancaster, Pa.

Applications of the Bivicon Tube

Robert E. Flory, *RCA Laboratories, Princeton, N.J.*

European Studio Facilities and Equipment

Larry E. Nelson, *Century Strand, Inc., Hawthorne, Ca.*

A Technical Look at Various Videotape Recording Formats

Charles E. Anderson, *Ampex Corp., Redwood City, Ca.*

The Silicon Diode Tube in Color Cameras, Two Years after the Fact

Frederick J. Haines, *International Video Corp., Sunnyvale, Ca.*

SPECIALIZED NON-VIDEO DISPLAY SYSTEMS

(Concurrent with Television/CATV II)

The Role of Super 8 in Photographic Surveillance

Charles Wall, *Eastman Kodak Co., Rochester, N.Y.*

The Utilization of Optically Projected Display Systems Using 35mm Filmstrip and Automatically Coordinated Magnetic Soundtrack

John Lord, *DuKane Corp., St. Charles, Ill.*

Image-Enhancement Containment Systems for Projected Film Formats

Marvin Hodges, *Montage Productions, Woodland Hills, Ca.*

Portable Multimedia Rear-Screen Presentations

Roy C. Follett, *Des Moines Register & Tribune, Des Moines, Ia.*

Development of a Two-Hour Endless-Loop Cartridge-Loaded Projector System

John Landstrom, *Trans Com Productions, Inc., Long Beach, Ca.*

WEDNESDAY MORNING — April 11

INDUSTRIAL TV AND MOTION-PICTURE OPERATIONS

The Use of Film and Television in Industry Today as Practiced by Standard Oil of Indiana, U.S. Gypsum, Quaker Oats, Allstate Insurance and Ford Motor Company.

Mr. Harry Paney, *Arthur Anderson & Co., Chicago*, will give a summary and description of the day-to-day utilization of television and motion-picture disciplines and a wide range of industrial concerns. He will be assisted by the following panel:

Video — A New Industrial Revolution?

Thomas L. Krasin, *Quaker Oats Co., Chicago, Ill.*

Audiovisuals in Corporate Communications

Robert Zeller, *Allstate Insurance Co., Skokie, Ill.*

Planning an Audiovisual Communication System for a Major Corporation

Willard Y. Thomas, *Standard Oil Co. (Indiana), Chicago, Ill.*

Man's Best Friend in Business: Television

Barry I. Wolf, *U.S. Gypsum, Inc., Chicago, Ill.*

Industrial TV and Motion-Picture Operations in Ford Motor Company

John Pepper, *Ford Motor Co., Dearborn, Mich.*

Following their presentations, these five authors, together with Mr. Paney, will form a panel and will answer any questions relating to the present-day uses of motion pictures in industry.

WEDNESDAY AFTERNOON

HIGH-SPEED & INSTRUMENTATION PHOTOGRAPHY

(Concurrent with Small Format — Manufacturing)

Introduction to Instrumentation & High-Speed Photography
William Hyzer, *Consultant, Janesville, Wisconsin*

High-Speed Rotating Prism Cameras

R. D. Shoberg, *Shotec, Inc., San Jose, Ca.*

Oscilloscope Recording with a High-Speed Camera

A. Earl Quinn, *Eastman Kodak Co., Rochester, N.Y.*

High-Speed Photography in Machinery Analysis

Charles Jantzen, *Photographic Analysis Co., Wayne, N.J.*

High-Speed Photography in Applied Mechanics

Dr. R. N. Rowlands, *IIT Research Institute, Chicago, Ill.*

High-Speed Photography in the Automotive Industry

Richard O. Painter, *General Motors Corp., Milford, Mich.*

High-Speed Photography in Automotive Testing

James Lafer, *Chrysler Corp., Detroit, Mich.*

Careers in the Photo-Instrumentation Sciences — A Workshop

This will be conducted by a panel of experts in the field. They will include the Authors from the papers presented in this session.

A program of unique interest to students, teachers, and vocational guidance personnel who want the latest information on career opportunities in the Photo-Instrumentation Sciences. Leading practitioners in the field will demonstrate the latest equipment and techniques for the benefit of students, who will be admitted free to this special session. This panel of experts will discuss and answer questions regarding educational requirements, employment opportunities, etc.

SMALL FORMAT — MANUFACTURING

(Concurrent with High-Speed & Instrumentation Photography)

A New Concept in Cartridge Design to Meet Variable Requirements for Industrial and Educational Use

Hans Napfel and Lee Schank, *Fairchild Industrial Products, Commack, N.Y.*

Projection Problems Related to Slitting and/or Lubricating of 16mm/Super-8 Film.

Harold Miller, *Bell & Howell, Lincolnwood, Ill.*

Productivity Considerations in Super-8 Printing System Design

William Bowles, William D. Hedden and Kenneth Curtis, *Calvin Communications, Inc., Kansas City, Mo.*

COCKTAIL PARTY — Evening

Courtesy of Peterson Enterprises, Inc.

BANQUET AND DANCE — Evening

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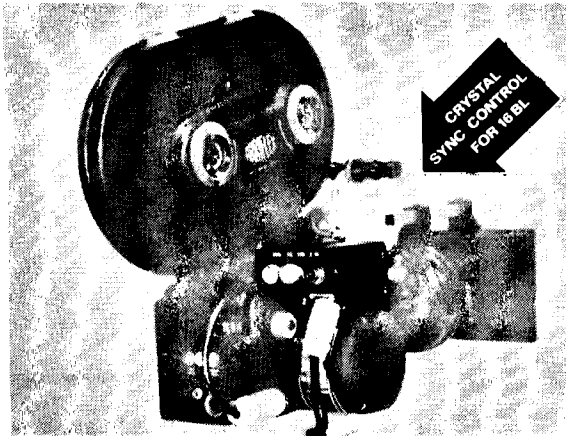
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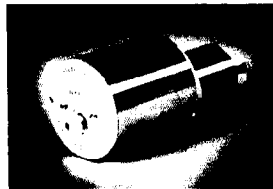
EXCLUSIVE FEATURES:

- ★ 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

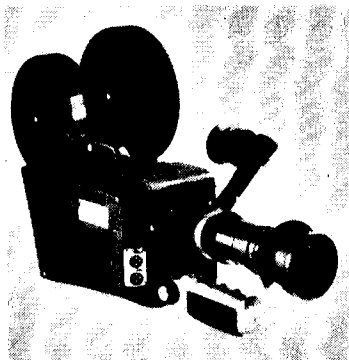


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Model 504



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News/Doc cameramen everywhere:



Here's the pace-setting new lightweight versatile complete and splendid practically silent 16mm TV-newsfilm cameraman's camera. Must be experienced to be believed.

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THURSDAY/FRIDAY — April 12/13

SYMPOSIUM: VIDEO CARTRIDGE, CASSETTE AND DISC PLAYER SYSTEMS — PACKAGED PROGRAMING

Time-Base Correction Systems for Videocassette Players
Robert Paulson, *Television Microtime, Bloomfield Hills, Conn.*

A Continuous-Motion Film Videoplayer Using Super-8 Film
David L. Babcock, William A. Martin and Lenard M. Metzger, *Eastman Kodak Co., Rochester, N.Y.*

A Remote-Control System to Support a Videocassette Network for Continuing Education
John Suchy, *Battelle Memorial Institute, Columbus, Oh.*

The Videocassette Package: In-Depth Information
James Lieberman, *Videorecord Corp. of America, Westport, Conn.*

A One-Inch Video Cartridge Recorder Designed for Professional CCTV and CATV
Keith Y. Reynolds, *International Video Corporation, Sunnyvale, Ca.*

Video Publishing/Hardware Marketplace
Elliot Minsker, *Knowledge Industries Publications, Inc., White Plains, N.Y.*

Use of Cassette Videotape at New Trier Township
Jack Spatafore, *The Washburn School, Winnetka, Ill.*

A Time-Compression Multiplex System for Color Telephone Analog Transmission
Michael Borsuk and Paul N. Browne, *Bell Telephone Laboratories, Inc., Holmdel, N.J.*

Exhibit Directory

Exhibit Hours

Monday, Apr. 9 5:00–8:00
Tuesday, Apr. 10 11:00–8:00
Wednesday, Apr. 11 9:30–4:00
Thursday, Apr. 12 11:00–6:00

Admission to the Exhibit will be by Registration Badge or Exhibit Pass. Passes may be purchased for \$2.50 each at the Registration Desk.

Angenieux Corp. of America Booth 23
440 Merrick Rd., Oceanside, L.I., NY 11572

Exhibiting: The 9.5–57mm, *f*/1.6 zoom lens (close focusing to 24 in. from focal plane with full zoom capability) will be exhibited on an array of new shoulder-held cameras. The short V30, 1-in and orientable viewfinders will be featured. An advanced automatic iris system incorporated in the standard 12–120mm, *f*/2.2 zoom lens will also be displayed.

Personnel: Bern Levy, Paul Foote, Walter David, Bob Jagemann

Arriflex Co. of America Booths 21, 22
25-30 Bklyn-Queens Expy. W., Woodside, NY 11377

Exhibiting: Complete line of Arriflex motion-picture cameras including new Arriflex 35 BL. Full complement of accessories, lenses, motors, etc. Also shown, Arrivox–Tandberg sync sound recorder and Sonorex Interlock 16/16 projector.

Personnel: Volker W. Bahnemann, Bruce E. Harris, Sheldon Glickman, George Thompson

Bell & Howell Co. Booths 41, 42, 43
7100 McCormick Road, Chicago, IL 60645

Exhibiting: Bell & Howell high-speed panel printer; Bell & Howell super-8 continuous optical reduction printer with frame count cuing system; Bell & Howell magnetic sound transfer console; Bell & Howell/Seiki high-speed step optical printer with wet-printing system; motion-picture laboratory accessories.

Personnel: Al Cims, George Darrell, Jerry Debish, John Ehrenberg, Fred Gonzalez, George Knapp, Al Meiche, Dennis Robertson, Harry Wiant

Berkey Colortran, Inc. Booths 50, 51
1015 Chestnut St., Burbank, CA 91502

Exhibiting: Fresnel fixture line; Dimmer Packs 2.4K & 3.6K; Mini Softlite; Mini Pan 20; Pro Kit IV; New Follow Spot.

Personnel: Marion M. Rimmer, Jan Clayton, Joseph N. Tawil, Walt Brewer, Phil Stidham, Gene Murphy, Ed Gallagher, Paul Roscorla

Canon, U.S.A., Inc. Booth 38
10 Nevada Dr., Lake Success, NY 11040

Carter Equipment Co., Inc./Optical Radiation Corp. Booth 35

232 So. Glasgow Avenue, Inglewood, CA 90301

Exhibiting: Utilizing ORC's novel Xenographic slide projection system, Carter Equipment Co., Inc. will present a slide display of the products manufactured by their firm. Highlighted will be the custom modification services afforded by Carter Equipment Co., Inc., and the sophisticated electronic hardware made available through their affiliate, Ramtronics. Additional products in the booth will be an Academy Award Winning ORC Xenon lamphouse (Model 1000) which features an integral lamphouse and power supply, and several new electronic accessories manufactured by Carter Equipment Co., Inc. for professional motion-picture film laboratories.

Personnel: W. D. Carter, Dan Miller, John Currie, Ron Offerman

Century Strand, Inc. Booth 31
3411 W.E1 Segundo Blvd., Hawthorne, CA 90250

Exhibiting: Ianiro studio and location equipment including 650-W fiberglass heads and a new fay light. Also, studio fresnels from 1,000 to 10,000-W. In addition, a complete line of portable kits and grip accessories.

Personnel: Larry Nelson, Terry O'Connell

Cinecraft International Booth 47
11 Caesar Place, Moonachie, NJ 07074

Exhibiting: Motion-picture printers; Low cost animation stand; Prevost portable editing table; Lisand mike boom; Lisand shoulder braces.

Personnel: Dom Capano, Bill Allen

Cinema Products Corp. Booths 15, 16
2044 Cotner Ave., Los Angeles, CA 90025

Exhibiting: The new CP-16 and CP-16A extremely lightweight, ultra silent camera systems featuring optional accessories: 24 and 36 frame/s with selector switch; built-in Crystasound recording system; pocket-size test oscillator for adjusting bias in the field; Sennheiser condenser mike pre-amp; front-mounted meter. New CRA-6 crystal motor for ARRI 35 with 24 or 25 frame/s on selector switch; BNC "Hard Front" for Arri 35 cameras; new lightweight C.P. Silent Reflex 35mm Studio Camera; crystal-controlled motors for BNC/NC, S35R Mark 11; Arri 16BL crystal motor controller; Joystick zoom controls for all 16mm and 35mm cameras and lenses; new series of Canon high-speed aspheric prime lenses; Canon K 35, 25–120