

Tuesday there will be a Board of Directors meeting at 4:00 p.m. followed by a dinner. On Wednesday there will be a meeting of all laboratory members followed by the Lab Equipment and Techniques Forum. SMPTE members are invited to attend the Forum which will begin at about 9:45 a.m. Because of the ACL meeting on Wednesday, the SMPTE Equipment Papers and Demonstrations session, normally held Wednesday morning, will be held Tuesday afternoon.

Synopses Booklet

There will be available at the 110th Conference copies of a Synopses Booklet containing two-page synopses of all the papers given during the week. This is given to weekly registrants, and sold to daily registrants for \$5.00. Copies are on sale from Society Headquarters as well, during and after Conference week, at the same price.

It is possible that the synopses booklet will be available at the Conference in French as well as in English.

Advance Program

This Program is the scheduling of papers within the sessions. It is as accurate and complete as possible. Before the Conference, however, papers may be removed or rearranged into other sessions. The sessions are firm. Questions about specific papers or sessions should be addressed to Society Headquarters, Att: 110th Conference—Elaine Itzkowitz, (212) 867-5410; Program Chairman Leslie H. Holmes, Canadian Broadcasting Head Office, P. O. Box 8478, Ottawa, Ont., K1G 3J5, Canada, (613) 731-3111, ext. 535; or Symposium Chairman Stanley F. Quinn, Canadian Broadcasting Corp. Development Dept., 7925 Cote St. Luc Rd., Montreal 267, P.Q., Canada, (514) 488-2551, ext. 359. 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, and later from Society Headquarters.

SUNDAY — October 3

12:00–5:00 REGISTRATION

MONDAY MORNING — October 4

8:00 REGISTRATION

9:30 LABORATORY PRACTICES I
(Concurrent with Television Systems I)

Automatic Break Alarm and Digital Film Tachometer
Alan K. Fraser, Treise Engineering, Northridge, Calif., and
W. D. Carter, Carter Equipment Co., Inglewood, Calif.

A Frame-Counting Cuer
Andrew Balint, Bell & Howell Co., Chicago

Photometric Printing Machine Control
D. Hardon, Bellevue-Pathé Ltd., Toronto, and *W. D. Carter*, Carter Equipment Co., Inglewood, Calif.

A New Reversal Print Film for Low Contrast Originals
J. D. Clifford, *R. W. Bauer* and *B. R. Hagenbuch*, Eastman Kodak Co., Photographic Technology Div., Rochester

Continuous Optical Reduction Printing and the Standards of Picture Sizes
Wolf Grau, Deutscher Normenausschuss, Berlin

Design Considerations for a Super-8 Continuous Optical Reduction Printer
William W. Morris, Peterson Enterprises, Inc., Glenview, Ill.

Type 903 — An Improved Gevachrome Print Film
Roger Huybrechts, Agfa-Gevaert, Antwerp, Belgium

9:00 TELEVISION SYSTEMS I
(Concurrent with Laboratory Practices I)

Two-Inch Return-Beam Vidicon Performance Evaluation
B. P. Miller, *G. Beck* and *J. Barletta*, RCA Astro-Electronics Div., Princeton, N.J.

The Image Isocon for Nonbroadcast Purposes
R. D. Nixon and *W. E. Turk*, English Electric Valve, Essex, England

A Color TV Receiver for CATV
A. Muma, Electrohome Ltd., Kitchener, Ont.

Medical Applications of Television
Bruce M. Read, H. K. Davis and Assoc., Ltd., Don Mills, Ont.

Some Aspects of Switched Subscriber Visual Telecommunications Systems
J. L. Pearce, Bell-Northern Research, Ottawa, Ont.

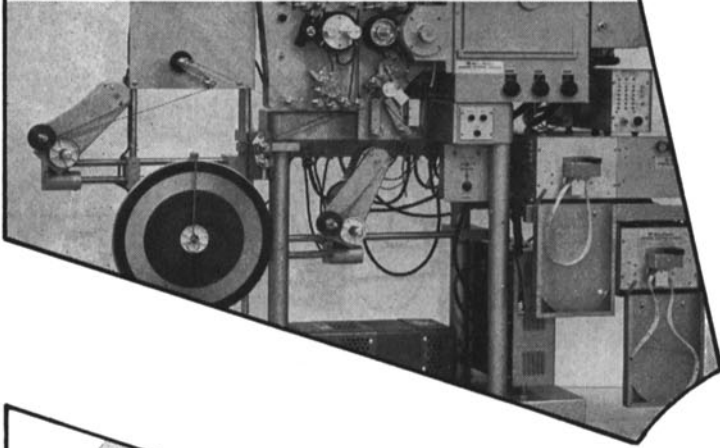
An On-Demand Educational Television Program Retrieval System
C. A. Billowes, Bell-Northern Research, Ottawa, and *M. Gailitis*, Ontario Institute for Studies in Education, Toronto, Ont.

The Design and Performance of a Third Generation Quadruplex Videotape Recorder
M. Glen Rose, Ampex Corp., Redwood City, Calif.

Cobalt Modified High-Coercivity Magnetic Tape
H. Lee Marks, 3M Co., St. Paul, Minn.

Cobaloy — A New Magnetic Particle
R. J. Deffeyes, Graham Magnetics, Graham, Tx., and *C. E. Johnson, Jr.*, Consulting Physicist, Weston, Mass.

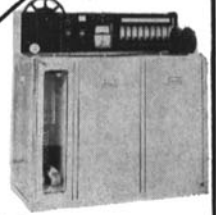
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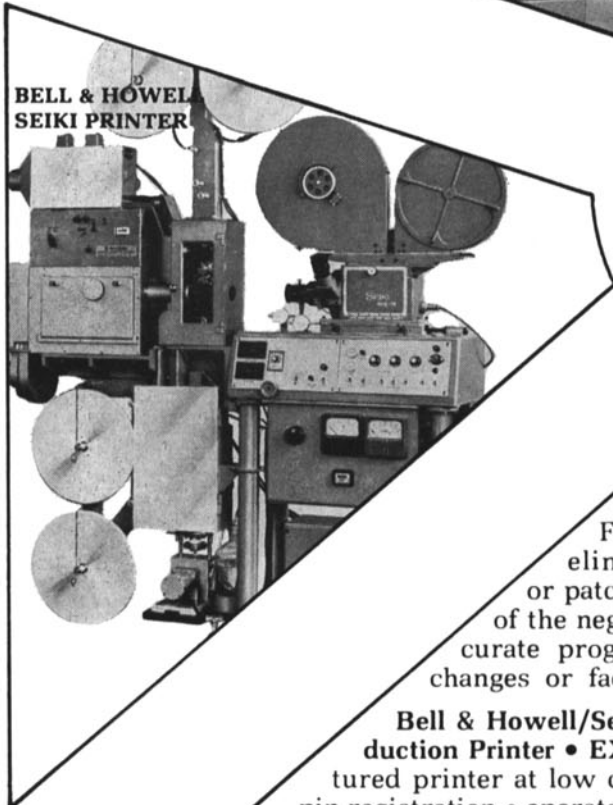
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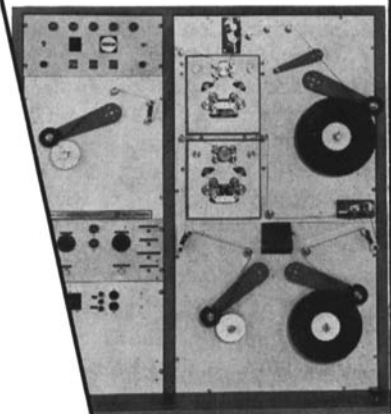
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MONDAY AFTERNOON

12:00 GET-TOGETHER LUNCHEON

Guest Speaker: The Hon. Gérard Pelletier,
Secretary of State, Canada
AWARDS PRESENTATION

3:00 LABORATORY PRACTICES II (Concurrent with Television II and Motion-Picture Systems)

The Handling and Control of Chemicals in the Modern Motion-Picture Laboratory

*David J. Degenkolb and Fred J. Scobey, DeLuxe General
Inc., Hollywood*

Restoration and Reuse of Motion-Picture Effluents

*Grant Dearnaley and Daniel Paquin, National Film Board,
Montreal*

Recovery and Pollution Control by Reverse Osmosis — A Pilot Installation

*Mel Kay, Murray Marshall and Findlay Quinn, Quinn Labo-
ratories, and Hugh Meikle, Ames Crosta Mills, To-
ronto*

The Determination of Bromide in Color Developers Con- taining High Levels of Chloride

Richard E. Grenier, Bellevue-Pathé Ltd., Toronto

A New Look in Electrolytic Silver Recovery

*Robert P. Gyori and Fred J. Scobey, DeLuxe General Inc.,
Hollywood*

3:00 TELEVISION SYSTEMS II (Concurrent with Motion-Picture Systems and Laboratory Practices II)

A New Television Studio

Y. Uji-ie, Japan Broadcasting Corp., Tokyo

The Place de Radio-Canada Project

*N. Grover and E. E. Sidney, Canadian Broadcasting Corp.,
Montreal*

TV Technical Facilities, Place de Radio-Canada

*Brian D. Baldry, G. A. Byrne and R. Savard, Canadian
Broadcasting Corp., Montreal*

TV Lighting Facilities, Place de Radio Canada

*Tom C. Nutt and C. William Shearer, Canadian Broad-
casting Corp., Montreal*

The Evaluation of Loudspeakers for Broadcasting

C. R. Heft, Canadian Broadcasting Corp., Montreal

The Measurement of Color Rendition in Color Television

*K. R. Field, D. H. MacRae and R. Brodeur, Canadian
Broadcasting Corp., Montreal*

3:00 MOTION-PICTURE SYSTEMS (Concurrent with Television Systems II and Laboratory Practices II)

Creative Reasons for the Use of 16mm Color vs 35mm Color in the Production of TV Commercials

Fritz Spiess, TDF Film Productions Ltd., Toronto

The Use of Film in Television

*Jack Mewett, British Broadcasting Corp. TV Film Studios,
London*

Underwater Recording in the Arctic

Chester Beachell, National Film Board, Montreal

Motion-Picture/Computer Systems for Sounds and Visuals

*Lillian Schwartz, Independent Filmmaker, Maplewood,
N.J., Kenneth Knowlton, F. R. Moore and M. Ma-
thews, Bell Laboratories, Murray Hill, N.J., and Ste-
phen Schwartz, Yale University, New Haven, Conn.*

A Call for an 8mm Production System for the Noncom- mercial Filmmaker

J. C. Goldner, San Francisco State College

5:00 EXHIBIT OPEN HOUSE

TUESDAY MORNING — October 5

9:00 FILM FOR TELEVISION (Concurrent with Projection and Theater Design)

A Portable Film System for Demonstrating Benefits of Us- ing Film for Television

*John A. Pistor, Eastman Kodak Co. Motion Picture and
Education Markets Div., Rochester*

Training for Teleproduction With Film

Rodger J. Ross, TV Film Consultant, Toronto

A Cross-Step Gray-Scale Slide for Telecine

*Daan Zwick, Eastman Kodak Co. Research Laboratories,
Rochester*

Image Transform Process

John Lowry, Image Transform Inc., N. Hollywood, Calif.

A Channel-Threading 16mm Television Projector

*E. S. Miller, R. A. Steelnack and R. S. Vukosic, Eastman
Kodak Co. Motion Picture and Education Markets
Div., Rochester*

Color Balance and the Density of Films for Tungsten (The- atrical) and Arc (TV Preview) Projection

*Daan Zwick and Daniel Brothers, Jr., Eastman Kodak Co.
Research Laboratories, Rochester*

Film vs Plumbicon Cameras: A Critical Comparison Be- tween Both Systems in Terms of Sensitivity and Signal- to-Noise Ratio

*A. Huyen and R. Verbrugghe, Agfa-Gevaert Inc., Antwerp,
Belgium*

The Technical Aspects of Television Program Production on Film or Videotape

*R. Theile, H. Fix and K.-E. Gondesen, Institut für Rund-
funktechnik GmbH., Munich*

Panel Discussion: The Need for On-Air Color Correction of Film — Whose Responsibility?

9:00 PROJECTION AND THEATER DESIGN (Concurrent with Film for Television)

Characteristics of Rear-Projection Systems

*Paul B. Hinds and James J. DePalma, Eastman Kodak Co.
Motion Picture and Education Markets Div., Roch-
ester*

New Xenon Compact Arc Projection Lamps for Horizon- tal Operation

*H. S. Strauss, W. E. Thouret, J. Leyden, H. Kee and T. W.
Hunt, Duro Test Corp., N. Bergen, N.J.*

Conditions and Requirements for Uninterrupted Continu- ous Multiscreen Performance to High-Quality Stan- dards

Pete G. van der Kleut, Netherlands Foundation, Hilversum

New Large-Screen Theater and Projection System

William C. Shaw, Multiscreen Corp., Galt, Ont.

The Fully Automated Theater — At Last a Reality

*Al Boudouris and Geoffrey T. Gray, EPRAD, Inc., Toledo,
and John J. Burlinson, Jr., National Screen Service,
New York*

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The Environmental Theater — New Concepts in Equipment and Approach

Albert Jekste, Atlantic Films, Montreal

Panel Discussion

TUESDAY AFTERNOON

2:00 EQUIPMENT PAPERS AND DEMONSTRATIONS

TUESDAY EVENING

Wine and Cheese Party

WEDNESDAY MORNING — October 6

9:00 TELEVISION SYSTEMS III
(Concurrent with Photo-Instrumentation I)

Logic Control for Parallel Video Processing in Program Switchers

N. Srinivasan, General Electric Co., Syracuse, N.Y.

Computer Broadcast Automation: A Consultant's Viewpoint
R. J. A. Buhr, Carleton University, Systems Engineering Dept., Ottawa, Ont.

Some Features of Computer-Controlled TV Station Switchers

Michael Barlow, Canadian Broadcasting Corp., Montreal

Television Automation — Design Concepts

R. J. Torpey, Richmond Hill Laboratories Ltd., Scarborough, Ont.

The MK VIII Automatic Color Camera

W. T. Underhill, Marconi Co. Broadcasting Div., Chelmsford, England

Features of a New Three-Tube Color Camera

D. G. Perkins, EMI Electronics Ltd., Middlesex, England

Considerations About Automation on TV Color Cameras

H. D. Schneider, Fernseh GmbH., Darmstadt, Germany

Automatic Centering Unit for the Registration of a Color Television Camera

A. W. Critchley, EMI Electronics Ltd., Middlesex, England

A New Lightweight Portable TV Color Camera

Herbert Zettl, Fernseh GmbH., Darmstadt, Germany

Practical Approach to a Handheld Video Camera

G. Ross Jebson and Warren R. Smith, Editel Productions Ltd., Montreal

9:00 PHOTO-INSTRUMENTATION I
(Concurrent with Television Systems III)

A Technique for Measuring Fluid Velocities With Tracer Particles

I. A. Feuerstein, N. S. R. Knowles and D. R. Woods, McMaster University, Hamilton, Ont.

Studies of Fluid Flow by Photography Using Non-Disturbing Light-Sensitive Indicators

J. W. Smith and R. L. Hummel, University of Toronto, Dept. of Chemical Engineering

Flow Near the Surface of a Mixing Vessel — An Example of the Photochromic Technique Using Inexpensive Equipment

H. Sovaká and J. Procházka, Czechoslovak Academy of Science, Prague, and R. L. Hummel, University of Toronto

Measurement of the Velocity of Particles Emerging From a Plasma Flame by High-Speed Cine-Streak Photography

J. A. Lewis, Ministry of Defence, Essex, England, and W. H. Gauvin, McGill University, Montreal

High-Speed Photographic Analysis of Whiplash in Monkeys

R. C. Tennyson, J. A. McClure and R. Ricciatti, University of Toronto

WEDNESDAY AFTERNOON

2:00 PHOTO-INSTRUMENTATION II
(Concurrent with Television Systems IV)

Some Applications of High-Speed Cinematography in Aluminum Welding Research

Charles D. Phelan, Alcan International Ltd., Kingston, Ont.

A Picosecond Image-Converter Streak Camera

A. J. Alcock and M. C. Richardson, National Research Council, Ottawa, and M. Ya. Schelev, P. N. Lebedev Institute, Moscow

Photography — A Tool to Study Blasting Phenomena

G. Desrochers, Canadian Industries Ltd., McMasterville, P.Q.

A Biomechanical Analysis of Foot Placement in Skilled Runners

D. P. Roche, University of Windsor, Windsor, Ont.

A Focal-Plane Exposure Meter for High-Speed Rotating-Prism Cameras

Victor J. Canziani and Charles A. Jantzen, Photographic Analysis Co., Wayne, N.J.

2:00 TELEVISION SYSTEMS IV
(Concurrent with Photo-Instrumentation II)

Utilization of Domestic Communication Satellites in Broadcasting Networks

C. A. Siocos, Canadian Broadcasting Corp., Montreal

Broadcasting From Satellites — UHF Television Channel Utilization

R. F. Zeitoun, Department of Communications, Ottawa, Ont., and C. A. Siocos, Canadian Broadcasting Corp., Montreal

Television Distribution by the Canadian Domestic Satellite System

R. M. Lester, Telesat Canada, Vanier, Ottawa, Ont.

Some Technical Considerations in the Provision of TV Coverage by Satellite

J. E. D. Ball, Public Broadcasting Service, Washington, D.C.

Digital Transmission of Color TV Signals via Satellite

Leonard S. Golding, Comsat Laboratories, Clarksburg, Md.

A Data Compression and Transmission System for Video Signals

R. W. McCaughern, Bell-Northern Research, Ottawa, Ont.

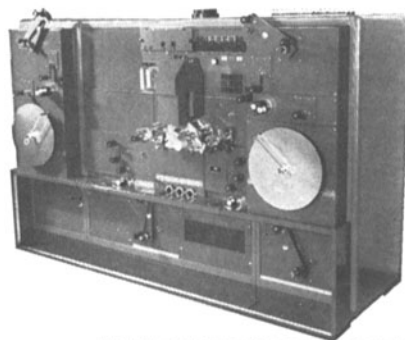
A Combined Educational and TV Network — Satellite Distribution System

D. R. Wells, Public Broadcasting System, Washington, D.C.

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R. P. Haviland, General Electric Co., Philadelphia

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SYMPOSIUM ON VIDEO CARTRIDGE, CASSETTE AND DISC PLAYER SYSTEMS

THURSDAY MORNING — October 7

9:00 PERSPECTIVE SESSION

Keynote Speech: Socio-Economic Aspects of Video Player Systems — A Perspective

Wilton R. Holm, SMPTE President; AMPTP Research Center, Hollywood

Video Cassette — The New Medium

Daniel I. Cooper, McGraw-Hill, Inc., New York

Video Cassettes, Boom or Bust?

Gordon Thompson, Bell-Northern Research, Ottawa, Ont.

Cassettes et Video Cassettes

Claude Soulé, Secrétaire Général, UNIATEC, Paris

Panel Discussion: Perspective

Eric Yavitz, Eastman Kodak Co. MP & EM Div., Rochester, moderator; panelists: *Wilton R. Holm*, AMPTP Research Center, Hollywood; *Daniel I. Cooper*, McHill Inc., New York; *Gordon Thompson*, Bell Northern Research, Ottawa; and *Yves Garneau*, Bellevue-Pathé, Montreal

THURSDAY AFTERNOON

2:00 TECHNICAL SESSION I

Keynote Speech: The Technique of the Audio-Visual Method of Storing and Reproducing Television Programs

Richard Thiele, Institut für Rundfunktechnik GmbH., Munich

The Standards Problem in Videotape Recording

Joseph Roizen, Graduate Education Network, Palo Alto, Calif.

High-Speed Contact Duplication of Video Magnetic Tapes

Charles E. Anderson, Ampex Corp., Redwood City, Calif.

The Videoplayer-TV Receiver Interface

Norman Parker, Motorola, Inc., Franklin Park, Ill.

Compatibilité et Standardisation des Différents Systèmes de Video Cassettes

José Bernhart, French National Television Office, Paris

FRIDAY MORNING — October 8

9:00 UTILIZATION SESSION

Keynote Speech: Quebec '71 et l'Information par l'Image

Gilles Bergeron, Sous-Ministre, Dept. of the Minister of Communications, Quebec City

Audio-Visual Methods of Self-Education in the Health Sciences or "What You Want, When You Want It, Where You Want It and As Often as You Need It"

J. Norrie Swanson, University of Toronto

Cable Television Prospects for Cassette Systems

I. Switzer, Maclean-Hunter Cable TV Ltd., Toronto

Industrial Applications of Video Player Systems

Thomas R. Shepherd, Shepherd Education and Communication Co., Inc., Concord, Mass.

Another Chance for the Individual (Home Utilization of Video Cassettes)

Paul Caravatt, Interpublic Group of Companies, New York

Panel Discussion: Utilization

Yves Labonté, Radio Quebec, moderator; panelists: *G. Bergeron*, Dept. of the Minister of Communications, Quebec; *J. Norrie Swanson*, University of Toronto; *I. Switzer*, Maclean-Hunter Cable TV Ltd., Toronto; *Thomas R. Shepherd*, Shepherd Education and Communication Co., Inc., Concord, Mass.; and *Paul Caravatt*, Interpublic Group of Companies, New York

FRIDAY AFTERNOON

2:00 TECHNICAL SESSION II

The Design Concept of a Color Videocassette Total System

Kazuo Iwama, Sony Corp. of America, Long Island City, N.Y.

Super-8 Film — A Universal Input to Video Cassettes and Television Systems, Part I: Application Concepts

Eric A. Yavitz, Eastman Kodak Co. MP & EM Div., Rochester

Super-8 Film — A Universal Input to Video Cassettes and Television Systems, Part II: Technical Considerations

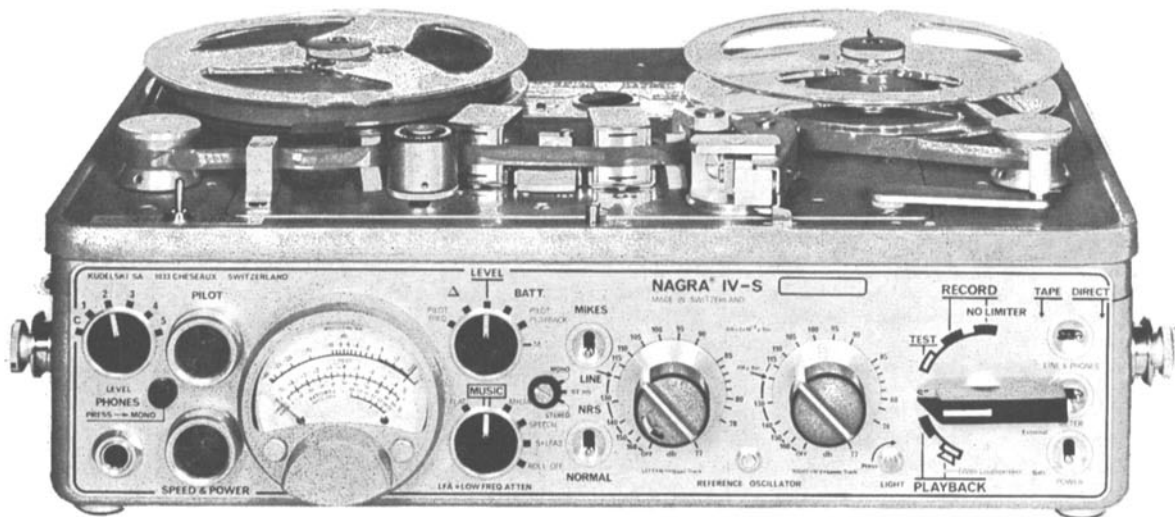
J. L. Boon, Eastman Kodak Co. Apparatus Div., Rochester

The Teldec Video Disc System

Horst Redlich, Teldec, Berlin

Demonstrations

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