

# Papers Presented at the Washington Convention, October 6-10

By SESSIONS

## **MONDAY AFTERNOON — Television Session**

- J. E. Hayes, Canadian Broadcasting Corp., Montreal, Canada, "Television Facilities of the Canadian Broadcasting Corporation."  
R. D. Chipp, Du Mont Television Network, New York, "Film Projection Using Image Orthicon Cameras."  
L. L. Pourciau, General Precision Laboratory, Inc., Pleasantville, N.Y., "Television Camera Equipment of Advanced Design."  
W. E. Stewart, Radio Corporation of America, Engineering Products Division, Camden, N.J., "New Professional Television Projector."

## **MONDAY EVENING — Television Session**

- William H. Offenhauser, Jr., New Canaan, Conn., "Nomenclature for Motion Pictures and Television in the Society of Motion Picture and Television Engineers."  
Pierre Mertz, Bell Telephone Laboratories, New York, "Influence of Echoes on Television Transmission."  
A. V. Loughren, Hazeltine Corp., Little Neck, L.I., N.Y., "The Accomplishments and Recommendations of the National Television System Committee in the Field of Color Television."

## **TUESDAY MORNING — Television Session**

- Mary Ellen Widdop, RCA Victor Division, Camden, N.J., "A Review of Work on Dichroic Mirrors and Their Light-Dividing Characteristics."  
Ralph E. Lovell, National Broadcasting Co., Hollywood, Calif., "Time-Zone Delay of Television Programs by Means of Kinescope Recording."  
Ralph E. Lovell and Robert M. Fraser, National Broadcasting Co., Hollywood and New York, "Instrumentation and Sensitometry Employed in Kinescope Recording."  
John S. Auld, Signal Corps Photo Center, Long Island City, N.Y., "Facilities and Employment of the Signal Corps Mobile Television System."

## **TUESDAY AFTERNOON — Television Session**

- Karl Freund, Photo Research Corp., Burbank, Calif., "Shooting Live Television Shows on Film."  
Ferencz Fodor, Filmcraft Productions, Hollywood, Calif., "Filmcraft's Camera Control System."

## **TUESDAY EVENING — General Session**

- Leonard A. Herzig, Prestoscal Manufacturing Corp., Long Island City, N.Y., "Method and Apparatus for Splicing Motion Picture Safety Film Without the Use of Cements or Adhesives."
- Gustav Jirouch, Cine-Television Equipment, Ltd., Kent, England, "The Robot Automatic Film Splicer."
- R. Kingslake (Committee Chairman), Eastman Kodak Co., Rochester, N.Y., "Optics Committee Report."
- E. H. Bowlds, E. H. Bowlds Engineering Co., Los Angeles, Calif., "An Animation Stand of New Design."
- John A. Rodgers, Eastman Kodak Co., Rochester, N.Y., "Projector for 16mm Optical and Magnetic Sound."
- Ann Hyer, Division of Audio-Visual Education, National Education Association, Washington, D.C., "Planning Classrooms for Use of Audio-Visual Materials."

## **WEDNESDAY MORNING (Concurrent Sessions)**

### **————— Film Processing Session**

- Leonhard Katz and William F. Esthimer, Raytheon Manufacturing Co., Newton, Mass., "Further Experiments in High-Speed Processing Using Turbulent Fluids."
- F. Dana Miller, Eastman Kodak Co., Rochester, N.Y., "Rapid Drying of Normally Processed Black-and-White Motion Picture Films."
- Edward B. Krause and Joseph A. Tanney, S.O.S. Cinema Supply Corp., New York, "The Bridgamatic Developing Machine."
- E. K. Carver (Committee Chairman), Eastman Kodak Co., Rochester, N.Y., "Film Dimensions Committee Report."
- John Streiffert, Kodak Research Laboratories, Rochester, N.Y., "A Fast-Acting Exposure Control System for Color Motion Picture Printing."
- A. A. Duryea, T. J. Gaski and L. Mansfield, Pathe Laboratories, Inc., New York, "Film Presentation of Various Productions on Eastman Negative-Positive Color Process."

### **————— High-Speed Photography Session**

- John H. Waddell, Wollensak Optical Co., Rochester, N.Y., "Introduction of the Symposium and History of High-Speed Photography."
- Richard O. Painter (Vice-Chairman), General Motors Proving Ground, Milford, Mich., "High-Speed Photography Committee Report."
- Norman F. Barnes, General Electric Co., Schenectady, N.Y., "Optical Techniques for Fluid Flow."
- Major P. Naslin, French Laboratory of Armament, Paris, France, "Some Simple Electronic High-Speed Photographic and Cinematographic Devices."
- R. M. Blunt, Institute of Industrial Research, University of Denver, Denver, Colo., "The Use of Photography in the Underground Explosion Test Program, 1951-1952."

## **WEDNESDAY NOON — High-Speed Photography Luncheon**

- A. C. Keller, Bell Telephone Laboratories, New York, Keynote Address, "The Economics of High-Speed Photography."

### **WEDNESDAY AFTERNOON — High-Speed Photography Session**

- Louis F. Ehrke, Westinghouse Electric Corp., Bloomfield, N.J., "History of Ultra High, Speed X-Ray Exposures and X-Ray Motion Pictures."
- S. J. Jacobs, Naval Ordnance Laboratory, White Oak, Md., "Space-Time Resolution as a Criterion for Comparing Ultra-High-Speed Photographs."
- Roger Wilkinson, Bell Telephone Laboratories, New York, and Harry Romig, Hughes Aircraft Co., Culver City, Calif., "Space-Time Relationships With Multiple Camera Installations."
- H. Schardin, Laboratoire de Recherches, Weil Am Rhein, Baden, Germany, "The Development of High-Speed Photographic Techniques in Europe."
- Morton Sultanoff, Terminal Ballistics Laboratory, Aberdeen Proving Ground, Md. "Photographic Instrumentation in the Study of Explosive Reactions."

### **THURSDAY MORNING — High-Speed Photography Session**

- Harold E. Bauer and Webster Blake, Douglas Aircraft Co., Santa Monica, Calif., "The Applications of Wide-Angle Optics to Moderately High-Speed Motion Picture Cameras."
- J. S. Courtney-Pratt, University of Cambridge, Cambridge, England, "Two New Methods of High-Speed Photography."
- H. W. Greenwood, Canadian Armament Research and Development Establishment, Ottawa, Canada, "Information Discussion of Image-Convertors and Other Ballistic Methods."
- F. W. Bowditch, General Motors Corp., Detroit, "The Use of Motion Picture Photography for Combustion Research."
- Amy E. Griffin and Elmer E. Green, U.S. Naval Ordnance Test Station, China Lake Calif., "Accuracy Limitations on the Use of High-Speed Metric Photography."
- W. O. Johnson, E. I. du Pont de Nemours & Co., Wilmington, Del., "High-Speed Photography in the Chemical Industry."

### **THURSDAY AFTERNOON (Concurrent Sessions)**

#### **General Session**

- R. D. Bennett, Technical Director of the Naval Ordnance Laboratory, White Oak, Md., "The Naval Ordnance Laboratory."
- J. S. Watson, Jr., and S. A. Weinberg, University of Rochester School of Medicine and Dentistry, Rochester, N.Y., "70mm Motion Picture Camera for X-Ray Motion Pictures."
- W. W. Lozier (Committee Chairman), National Carbon Co., Fostoria, Ohio, "Screen Brightness Committee Report."
- Armin J. Hill, Motion Picture Research Council, Hollywood, Calif., "A Simple Formula for Taking Stereoscopic Motion Pictures."
- Armin J. Hill, Motion Picture Research Council, Hollywood, Calif., "A First-Order Approximation for the Mathematical Treatment of Diffusing Surfaces."
- Allen Stimson and Edward H. Fee, General Electric Co., West Lynn, Mass., "Color and Reflectance of Human Flesh."

#### **High-Speed Photography Session**

- Harold C. Barr, Sandia Corp., Albuquerque, N.M., "High-Speed Photographic Instrumentation in Field Tests."

- Berlyn Brixner, Los Alamos Scientific Laboratory, Los Alamos, N.M., "High-Speed, Rotating-Mirror Frame Camera."
- A. M. Erickson, Naval Ordnance Laboratory, White Oak, Md., "Photographic Instrumentation of Timing Systems."
- H. Schardin, Weil Am Rhein, Baden, Germany, "High-Speed Spark Photography."
- I. L. Stern and J. H. Foster, Material Laboratory, New York Naval Shipyard, Brooklyn, N.Y., "High-Speed Photographic Techniques for the Study of the Welding Arc."
- Charles T. Lakin, U.S. Naval Ordnance Test Station, Inyokern, Calif., "The 70-mm Test Vehicle Recorder."
- W. R. Stamp and R. P. Coghlan, Royal Naval Scientific Service, United Kingdom, "Growth and Decay of Light Measured Photographically From Flash Discharge Tubes."
- W. D. Chesterman, Royal Naval Scientific Service, United Kingdom, "New Precision Rotating Prism High-Speed Motion Picture Camera."
- W. D. Chesterman, Royal Naval Scientific Service, United Kingdom, "Further Developments in High-Speed Photography in England."
- Carl G. Jennergren, Research Institute of National Defense, Stockholm, Sweden, "High-Speed Photography in Sweden."

#### **THURSDAY EVENING (Current Sessions)**

##### **————— Symposium on 16mm Equipment Maintenance**

- Bernard A. Cousino, Cousino, Inc., Toledo, Ohio, "Equipment Maintenance — Key to Success."
- Henry H. Wilson, Ampro Corp., Chicago, "Operation of a Manufacturer's Service Organization."
- Fred Whitney, SMPTE, New York, and R. A. House, Film Recording Group, RCA Victor Division, Camden, N.J., "Test Films for 16mm Equipment Maintenance."
- Thomas C. Sheehan, Visual Instruction Office, Washington Public Schools, Washington, D.C., "Maintaining Visual Education Equipment in a Large City School System."
- O. T. Bright, Bell & Howell Co., Chicago, "Selection, Training and Equipping Field Service Stations for Repair of 16mm Projection Equipment."
- Philip M. Cowett, Bureau of Ships, U.S. Navy Dept., Washington, D.C., "Navy Maintenance of 16mm Projection Equipment."

##### **————— High-Speed Photography Session**

- Karl W. Maier, Springfield Armory, Springfield, Mass., "A Procedure for Complete Analysis of High-Speed Motion Picture Data."
- C. David Miller and Arthur Scharf, Battelle Memorial Institute, Columbus, Ohio, "An Isotransport Camera for 100,000 Frames per Second."
- Robert D. Shoberg, Army Ordnance Corp., White Sands Proving Ground, Las Cruces, N.M., "High-Speed Instrumentation of Guided Missiles."
- Kenneth Shaftan, J. A. Maurer, Inc., Long Island City, N.Y., "Progress in Photographic Instrumentation in 1951."

#### **FRIDAY MORNING (Concurrent Sessions)**

##### **————— Sound Recording and Reproduction**

- W. K. Grimwood and J. R. Horak, Kodak Research Laboratories, Rochester, N.Y., "Optimum Slit Height in Photographic Sound-Track Reproducers."

- J. K. Hilliard (Committee Chairman), Altec Lansing Corp., Beverly Hills, Calif., "Sound Committee Report."
- Robert Dressler and Albert Chesnes, Paramount Pictures Corp., New York, "Sound-on-Film Recording Using Electro-Optic Crystal Techniques."
- John G. Frayne, Westrex Corp., Hollywood, Calif., and J. P. Livadary, Columbia Pictures Corp., Hollywood, Calif., "Dual Photomagnetic Intermediate Studio Recording."
- Maxwell A. Kerr, Navy Dept., Bureau of Ships, Washington, D.C., "16mm Release-Print Inspection — Some Observations and Proposals."

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#### **High-Speed Photography Session**

- Joshua Fields, Louis Fields, Eleanor Gerlach and Myron Prinzmetal, Institute for Medical Research, Cedars of Lebanon Hospital, Los Angeles, "High-Speed Cine-Electrocardiography."
- Willard E. Buck, Los Alamos Scientific Laboratory, Los Alamos, N.M., "Transient Pressure Recording With a High-Speed Interferometer Camera."
- Floyd Stratton and Kurt Stehling, Bell Aircraft Co., Buffalo, N.Y., "Applications of High-Speed Photography in Rocket Motor Research."
- Harry R. Clason, National Advisory Committee for Aeronautics, Langley Field, Va., "A Method of Lighting Large Fields for High-Speed Motion Picture Photography."
- William P. Holloway, U.S. Naval Ordnance Test Station, Inyokern, Calif., "A Theodolite Method of Camera Calibration."
- Earl Quinn, Eastman Kodak Co., Rochester, N.Y., "A Case History of a High-Speed Tapping Operation."

#### **FRIDAY AFTERNOON (Concurrent Sessions)**

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##### **Symposium on Magnetic Striping of Film**

- Edward Schmidt, Reeves Soundcraft Corp., Springdale, Conn., "Commercial Experiences With Magnastripe Production."
- B. L. Kaspin, A. Roberts, H. Robbins and R. L. Powers, Bell & Howell Co., Chicago, "Magnetic Striping Techniques and Characteristics."
- A. H. Persoon, Minnesota Mining and Manufacturing Co., St. Paul, Minn., "Magnetic Striping of Photographic Film by the Laminating Process."
- Thomas R. Dedell, Eastman Kodak Co., Rochester, N.Y., "Magnetic Sound Tracks for Processed 16mm Motion Picture Film."
- G. A. Del Valle and L. W. Ferber, RCA Victor Division, Camden, N.J., "Notes on Wear of Magnetic Heads."
- Ernest W. Franck, Reeves Soundcraft Corp., Springdale, Conn., "A Study of Drop-Outs in Magnetic Film."
- E. W. D'Arcy, De Vry Corp., Chicago, "Standardization Needs for 16mm Magnetic Sound."

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##### **High-Speed Photography Session**

- David C. Gilkeson and A. E. Turula, Wollensak Optical Co., Rochester, N.Y., "Optical Aids for High-Speed Photography."
- Frederick P. Warrick, Frederick P. Warrick Co., Bloomfield Hills, Mich., "A High-Speed Recording Camera Featuring Constant Film Velocity and Large Film Capacity."
- John H. Waddell, Wollensak Optical Co., Rochester, N.Y., "Full-Frame 35mm Fastax Camera."
- M. Roganti, Wright-Patterson Air Force Base, Dayton, Ohio, "New Air Force Recording Camera."
- Myron A. Bondelid, U.S. Naval Ordnance Test Station, Inyokern, Calif., "The M-45 Tracking Camera."
- Charles A. Hulcher, Charles A. Hulcher Co., Hampton, Va., "70mm High-Speed Sequence Camera."