

JOURNAL OF THE

SMPTE



ENGINEERING • SCIENCE • TECHNOLOGY
FOR MOTION PICTURES • TELEVISION • INSTRUMENTATION • HIGH-SPEED PHOTOGRAPHY

145 TELEVISION AS A MEANS OF INSTRUCTIONAL COMMUNICATION

Introduction • *Ralph E. Lovell* / Los Angeles and Educational Television • *Rose Blyth* / Closed-Circuit Television as a Management Aid at Air Force Systems Command • *Thomas E. Farmer* / Video Film—Defense Communications Tool • *Robert B. Steel* / Application and Scope of Television Tape Recording in Educational Broadcasting • *James L. Loper and Howard Stucker* / Camera Tubes for Studio Use—A Semi-Technical Appraisal for Educators • *John W. Wentworth* / Quality Educational Television Production—Director or Instructor-Controlled • *James L. Loper and Rudy Bretz* / Overhead Television—The Electronic Visual Aid • *Rudy Bretz* / Central Projection: A New and More Practical System for the Utilization of Educational Films • *Rudy Bretz* / A High-Quality Instructional Television System Including a Mobile Video-Tape Recorder • *Ken Winslow, R. A. Isberg, and Roger Frye* / A New Design for a Visual Communications Center at the University of Miami • *C. Henderson Beal* / The Midwest Program on Airborne Television Instruction • *MPATI Staff*

177 The Optical Tunnel—A Versatile Electrooptical Tool • *L. J. Krolak and D. J. Parker*

181 A System for Universal Synchronization • *Karl G. Schwarz*

184 Development of a Continuous Film Processor to Overcome Common Deficiencies

• *Marc Bendick and William Scott*

189 A Multiple Head 16mm to 8mm Reduction Printer • *Geo. W. Colburn*

191 Résumés—Resumenes—Zusammenfassungen

196 A Note on the Early History of the Society and Its Work on Standardization

• *Glenn E. Matthews*

volume 72 • number 3

MARCH 1963

SMPTE CONVENTION

RD

Atlantic City • The Traymore

in this issue . . .

ADVANCE PROGRAM

Technical Papers Sessions
and Directory of Equipment
Exhibits

April
21-26

News Columns

93rd SMPTE Convention, Atlantic City	203
ADVANCE PROGRAM	205
EXHIBIT DIRECTORY	212
Education, Industry News	226
New Members	232
BOOKS REVIEWED	244
<i>Physiology of the Retina and Visual Pathway</i> , by G. S. Brindley, reviewed by Michael Barlow; <i>Televised Instruction</i> , ed. by Lee S. Dreyfus and Wallace M. Bradley, reviewed by Harry Wolfe;	

<i>The Needs of Education for Television Channel Allocations: A Survey by the National Association of Educational Broadcasters</i> , reviewed by Harry Wolfe; <i>Textbook on Mechanized Information Retrieval</i> , by Allan Kent, reviewed by Pierre Mertz.	
Books, Booklets and Brochures	250
Abstracts	260
Employment Service	275
Journals Available/Wanted	276

Advertisers

Arriflex Corp. of America	235, 278
Bach Auricon, Inc.	213
Beckman & Whitley, Inc.	259
Bell & Howell Co.	216, 217, 240
CBS Laboratories	265
Camera Equipment Co.	233, 270
Camera Mart, Inc.	274, 275
Camera Service Center	231
Christie Electric Corp.	271
ColorTran Industries, Inc.	239
Comprehensive Filmtreat, Inc.	218
Computer Measurements, Inc.	238
Eastman Kodak Co.	269
Hurletron, Inc.	236
Fairchild Camera & Instrument Corp.	220
Filmline Corp.	264
Florman & Babb, Inc.	219, 224, 246, 252, 271
General Film Laboratories	255
Gevaert Photo-Producten N.V.	251
Glen Glenn Sound Co.	245
Gryphon Co.	268
Harwald Co.	260
Hi-Speed Equipment, Inc.	248
Hollywood Film Co.	249
Philip A. Hunt Company	241
Kappa Scientific Corp.	222
L-W Photo Products Co.	256
Lab-TV	266

La Vezzi Machine Works	268
Lipsner-Smith Corp.	234
Magnasync Corp.	247
Magna-Tech Electronic Co., Inc.	261
Magnetic Sales Corp.	226
Marconi's Wireless Telegraph Co. Ltd.	253
D. B. Milliken Co.	243
Minnesota Mining & Mfg. Co.	257
Mitchell Camera Corp.	272, 273
Mole-Richardson Co.	264
Motion Picture Printing Equipment Co.	250
Moviola Mfg. Co.	254
North American Philips Co., Inc.	215
Pan-American Films	262
Permafilm, Inc.	232
Precision Laboratories Div.	228
Professional Services	277
Ram Engineering, Inc.	237
Reevesound Co., Inc.	263
L. B. Russell Chemicals Co., Inc.	225
SMPTE	242, 244
S.O.S. Photo-Cine-Optics, Inc.	262
Sequential Electronic Systems, Inc.	227
Starex, Inc.	258
Traid Corp.	267
Tri Art-Du Art Laboratories	221
Westrex Recording Systems	276
Wollensak Div., Revere Camera Co.	223
Zoomar, Inc.	229, 230

Meeting Calendar

93rd Semiannual Convention of the SMPTE and Equipment Exhibit, Apr. 21–26, Traymore Hotel, Atlantic City, N.J.
 SPSE, Annual Conference, Apr. 29–May 3, Ambassador Hotel Atlantic City, N. J.
 Illinois Institute of Technology, 3rd National Conference on the Peaceful Uses of Space, May 1–9, Chicago, Ill.
 IRE, Professional Group on Microwave Theory and Techniques, May 20–22, Santa Monica, Calif.
 American Society for Quality Control, Annual Convention and Exhibit, May 21–23, Hotel Sherman, Chicago.
 Acoustical Society of America, Spring Meeting, May 22–25, Hotel New Yorker, New York.
 IRE, National Conference on Product Engineering and Production, May 27–28, Boston, Mass.
 Canadian Nuclear Association, International Nuclear Conference and Exhibition, May 27–29, Queen Elizabeth Hotel, Montreal, Can.
 Society of Aerospace Material and Process Engineers, Materials and Processes in Space Power Conference, June 2–5, Bellevue-Stratford Hotel, Philadelphia, Pa.
 Edison Electric Institute, Annual Convention, June 3–5, Hilton Hotel, Denver, Colo.
 Armed Forces Communications and Electronic Association, Annual Convention and Show, June 4–6, Sheraton-Park and Shoreham Hotels, Washington, D. C.
 NYU, Masers and Lasers Conference, June 17–21, New York City.
 AICE, AIEE, ASME, IRE, ISA, Fourth Joint Automatic Control Conference, June 19–21, Univ. of Minnesota, Minneapolis.
 American Society for Testing and Materials, 66th Annual Meeting, June 23–28, Chalfonte-Haddon Hall, Atlantic City, N. J.

National Society of Professional Engineers, Annual Meeting, June 26–29, Sheraton-Cleveland Hotel, Cleveland.
 IRE, Symposium on Space Telecommunications, July 9–11, National Bureau of Standards, Boulder, Colo.
 5th International Conference on Medical Electronics, July 22–26, Centre Européen Des Grands Congrès, Liège, Belgium.
 ARS, Guidance and Control Conference, Aug. 12–14, Mass. Institute of Technology, Cambridge, Mass.
 Society of Automotive Engineers, National West Coast Meeting, Aug. 19–22, Olympic Hotel, Seattle, Wash.
 Western Electronic Show and Convention, Aug. 20–23, Cow Palace, San Francisco.
 ARS, Conference on Physics of Entry into Atmospheres, Aug. 26–28, Mass. Institute of Technology, Cambridge, Mass.
 Institute of the Aerospace Sciences, Simulation for Aerospace Flight, Aug. 26–28, Deshler-Hilton Hotel, Columbus, Ohio.
 Standards Engineers Society, Annual Meeting, Sept. Washington, D. C.
 ACS, Fall Meeting, Sept. 8–13, New York, N. Y.
 IRE, National Convention on Military Electronics, Sept. 9–11, Shoreham Hotel, Washington, D. C.
 ISA, Annual Instrument-Automation Conference and Exhibit, Sept. 9–12, McCormick Place, Chicago, Ill.
94th Semiannual Convention of the SMPTE and Equipment Exhibit, Oct. 13–18, Somerset Hotel, Boston.
 National Electronics Conference, Oct. 28–30, McCormick Place, Chicago.
95th Semiannual Convention of the SMPTE and Equipment Exhibit, Apr. 12–17, 1964, Ambassador Hotel, Los Angeles.
96th Semiannual Convention of the SMPTE and Equipment Exhibit, Sept. 27–Oct. 2, 1964 Commodore Hotel, New York.