

# The 1987 Progress Report

Prepared by the Progress Committee of the SMPTE

## FOREWORD

The Committee on Progress, as it was known then, was one of the first committees formed soon after the Society was founded in 1916. The 1920 Report of the Committee on Progress, published in *Transactions of the Society* in May 1920, consisted of five pages and concerned itself mainly with the manufacture of arc lamp carbons, motion-picture theater projection booth equipment, and the development of gas-filled incandescent lamps for projection. The report has been published annually since those formative years.

The Progress Committee continues this tradition and is pleased to present the 1987 Progress Report. Contributions to this report have been made from many parts of the world through Progress Committee members. The report is international in scope, and its greatly increased volume of subject matter and extended coverage reflects the continuing acceleration of image technology, highlighting progress, developments, and achievements in the motion-picture and television industries worldwide.

The Engineering Report documents the Society's commitment and leadership role in standardization. Eighty-two engineering committees are actively involved, and the Society is represented in 21 international organizations. The rapid development of technology brings urgency to this challenging task. The Society plans to extend engineering staff services to the Standards Committees to meet the demand.

The National Academy of Television Arts and Sciences recognized the Society of Motion Picture and Television Engineers and the European Broadcasting Union by presenting Engineering Emmy Awards to both organizations for the standardization of D-1 Component Digital Video Tape Recording. The D-1 standard is the result of an extensive two-year effort by the SMPTE Working Group on Digital Television Tape Recording, chaired by Frederick M. Remley, and the European Broadcasting Union. Mr. George Waters, Director of the EBU, received the Emmy on behalf of the European Broadcasting Union.

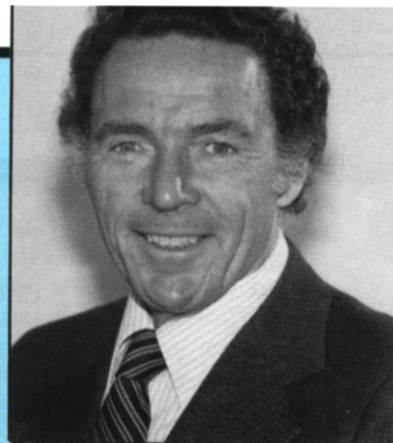
To strengthen the cooperative relationship of the SMPTE worldwide in May, the SMPTE participated in the second MPTEJ (Motion Picture Television Engineering Society of Japan) High-Definition Symposium held in Tokyo, Japan. In June 1987, SMPTE President Carlos Kennedy, Editorial Vice-President Howard T. LaZare, and (at that time) Editorial Director of Motion Pictures Edmund M. DiGiulio visited motion-picture research institutes, laboratories, production studios, and manufacturing facilities in the Soviet Union in Moscow, Kiev, and Leningrad. In September the President and Society members represented the Society at the Broadcast Technology Symposium and IEC Standards meeting in Beijing, People's Republic of China.

The first major event of the Society in 1987 was the 21st Annual Television Conference held in San Francisco, Calif., Feb. 6-7. Scientists and engineering executives from major television research centers and networks throughout the world addressed the theme, "The 21st Conference Looks to the 21st Century," with thought-provoking presentations.

The 129th SMPTE Technical Conference and Equipment Exhibit was held in Los Angeles, Calif., Oct. 31-Nov. 4, and attracted 17,000 people. The conference theme was "Imaging and Sound, Today and Tomorrow." The technical sessions were excellent, where 148 papers were presented by authors from many countries. The extensive 796-booth Equipment Exhibit covered 80,000 ft<sup>2</sup> at the Los Angeles Convention Center.

I wish to express my sincere gratitude to the members of the Progress Committee: former Engineering Vice-President Richard G. Streeter, Chairman of the Educational Advisory Committee Irwin W. Young, Editorial Directors Frank J. Haney and Edward J. Burns, SMPTE Headquarters editorial staff, and everyone who contributed to this report.

— Maurice L. French, Chairman, Progress Committee



Maurice L. French  
Chairman, Progress Committee

## Contents of Progress Report

|  |     |                            |     |  |     |
|--|-----|----------------------------|-----|--|-----|
| Foreword .....                         | 262 | Television .....           | 275 | Switchers .....                        | 304 |
| Engineering Report .....               | 263 | Cameras .....              | 275 | Time-Base Correctors .....             | 305 |
| Motion Pictures .....                  | 268 | Color Correctors .....     | 276 | Time Code Generators/<br>Readers ..... | 305 |
| Academy Awards .....                   | 268 | Control Systems .....      | 277 | Transmitters and<br>Satellites .....   | 305 |
| Cameras and Related<br>Equipment ..... | 269 | Editing Equipment .....    | 277 | Video Monitors .....                   | 306 |
| Film .....                             | 270 | Graphics and Effects ..... | 278 | Video Recorders .....                  | 306 |
| Laboratory Practices .....             | 270 | Lenses and Optics .....    | 280 | Videotape .....                        | 308 |
| Lighting .....                         | 270 | Microwave Equipment .....  | 281 | Hope Reports .....                     | 309 |
| Miscellaneous .....                    | 271 | Miscellaneous .....        | 281 | International Overviews .....          | 311 |
| Sound .....                            | 272 | Networks .....             | 282 | Educational .....                      | 324 |
| Support Equipment .....                | 273 | Organizations .....        | 300 |  |     |
| Telecine .....                         | 274 | Sound .....                | 302 |  |     |
|  |     | Support Equipment .....    | 303 |  |     |