



The 135th SMPTE Technical Conference and Equipment Exhibit Los Angeles Convention Center October 29 - November 2, 1993

Close to 15,000 people attended the 135th SMPTE Technical Conference and Equipment Exhibit, on "Integrating Technologies in the Digital Era," which took place October 29 to November 2, 1993, at the Los Angeles Convention Center. The five-day event offered in-depth coverage of new technologies and applications pertinent to image makers in all fields.

The event was under the overall supervision of SMPTE Conference Vice-President Edward P. Hobson II, National TeleConsultants, Inc., while General Arrangements Chairman John Brooks, Brooks/Flemming Associates, was in charge of the myriad details necessary to ensure the smooth running of the conference and exhibit. The technical program was under the direction of Editorial Vice-President David L. George, Imagineering Ltd.

Technical Program

The technical portion of the conference program focused on a wide

range of topics and issues. Over 100 papers were presented at the conference, which touched on the traditional areas of motion-picture, television, and computer imaging, as well as addressing specialized issues such as special venues multimedia applications, integrating technology in the digital era, digital terrestrial broadcasting in North America, film and the environment, laboratory practices, digital compression/format conversion, digital video/audio, digital sound in film, film formats, and IDTV and widescreen TV.

Keynote Address

James Clark, chairman of the board of Silicon Graphics, Inc., presented the keynote address during the conference's opening ceremonies, held on Saturday, October 30. He gave the audience his view of the future — one where the merger of computers, television, film, and other media are integrated in all aspects of program creation. Clark believes that this will

not be far into the future, stating that he looked forward to this rapid change, which he believed will be in full swing by 1997. He also touched on such topics as the rise of desktop systems over specialized devices, the transition to digital transmission, the home use of "tele-computers," and the network of the future.

All-Day Tutorials

As a prelude to the traditional technical program and equipment exhibit, the conference was preceded by three concurrent all-day tutorials on October 29, focusing on digital terrestrial television broadcasting (DTTB), digital motion imaging, and special venues.

DTTB Tutorial Workshop

The DTTB Tutorial Workshop was a joint effort by the SMPTE and the ITU-RB. The two-day session, which took place October 29 and November 1, presented the technologies and strategies fundamental to the development and

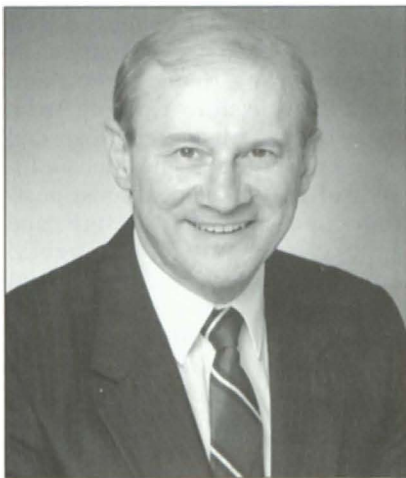
135TH SMPTE CONFERENCE



(L-R): Joseph A. Flaherty, who was awarded Honorary Membership in the Society, and LeRoy DeMarsh, recipient of the SMPTE Progress Medal.



Program Chairman Jonathan Erland with SMPTE Editorial Vice-President David L. George.



SMPTE Executive Vice-President Stanley N. Baron, Co-Chairman of the ITU/SMPTE Tutorial.



Banquet/Entertainment Chairman (L), Louis Wolf and Local Arrangements Committee Chairmen Milton Sheffer, and John Brooks.



The audience at the DTTB tutorial.

implementation of DTTB. Emphasis was placed on the underlying technologies of DTTB, their practical application in broadcasting systems, and their planning and design. Presentations were at a level appropriate for senior members of staff of those administrations considering the impact of DTTB on current or future broadcasting services, or considering its implementation.

Co-chairmen for the tutorial were SMPTE Engineering Vice-President Kenneth P. Davies, CBC, and Executive Vice-President Stanley N. Baron, NBC, Inc.

Subjects covered included compression technology, MPEG transport and tool boxes, service multiplex, encryption and conditional



The DTTB Tutorial attracted an unexpectedly large audience.



Conference Vice-President Ed Hobson, Editorial Vice-President David George, and Banquet/Entertainment Chairman Louis Wolf.

access, modulation technology, error management, channel coding, system scalability, and receiver programmability. The session concluded with a panel discussion of worldwide experts on DTTB services.

Presentations during the event were international in scope and included a panel of authorities from Australia, Canada, Denmark, England, France, Italy, Japan, Slovenia, Sweden, and the U.S. The official language of the tutorial workshop was English. Speakers represented such prestigious organizations as RAI, IBC, CCETT, NTL, NHK, CBC, NBC, David Sarnoff Research Co., Eastman Kodak, Grass Valley Group, and Toshiba. All registrants received a complete set of proceedings of the tutorial workshop.

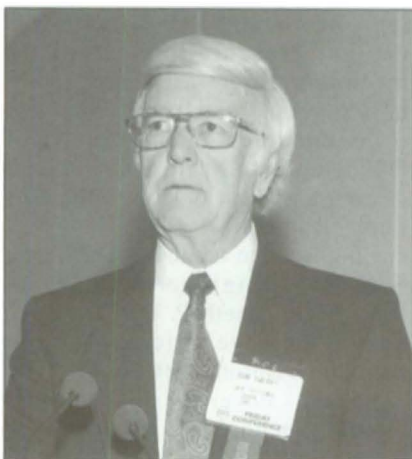
**“The SMPTE Experts Present”
Digital Motion Imaging:
Getting Started**

“The SMPTE Experts Present” was a continuation of the recently implemented SMPTE Traveling Tutorial Program. **Digital Motion Imaging: Getting Started** placed emphasis on practical applications of computer-based motion imaging. The all-day tutorial, which featured perspectives from experts and working professionals in this rapidly evolving field, covered the application of the speed and imaging capabilities of computers to the combination or manipulation of real or computer images in motion pictures or video.

Special Venues Tutorial

The Special Venues session provided

a history of special venues, covering World’s Fairs, museums, casino/resorts, and theme parks, and offered discussions ranging from the design and planning of a special venue project to the latest technologies, software considerations, post-production and sound design, and the exciting future of special venues. Speakers at the tutorial represented leading-edge companies in this specialized field, including Boss Film Digital Studios, Harrison Price Co., Imagica, Imagination Arts, Imax Corp., and Iwerks Entertainment. A large measure of the success of the tutorial was due to the efforts of co-chairmen Don Iwerks, Iwerks Entertainment, and Cindy Aylward, The Basix. The Special Venue papers sessions were directed by Nelson Meacham, Walt Disney Imagineering.



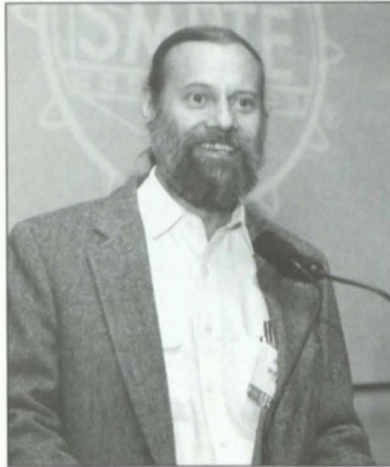
Don Iwerks, Co-Chairman of Special Venues Tutorial, at Friday’s session.



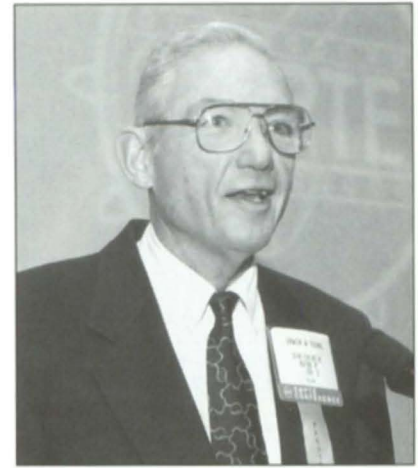
Co-Chair Cindy Aylward (R) speaking at the Special Venues Tutorial.

Opening Session

The conference was officially opened on Saturday at 9:00 with an address by President Irwin W. Young, comments from Program Chairman Jonathan Erland, and an Engineering Report from Engineering Vice-President Kenneth P. Davies. The text of their speeches appears in this issue. The keynote address was presented by James Clark, chairman of the board of Silicon Graphics, Inc., who gave the audience his view of the future, in which many separate media would converge.



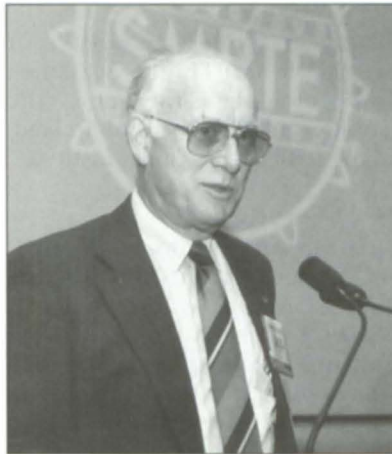
Program Chairman Jonathan Erland delivering remarks at opening session.



SMPTE President Irwin Young welcoming conference attendees.

Social Events

In addition to a solid educational program and an extensive equipment exhibit, the conference offered a full schedule of social events, including the Welcoming Reception on Friday evening, October 29; the Honors and Awards Luncheon on Saturday, October 30; the Fellows Reception and Luncheon on Sunday, October 31; and the Annual Banquet on Monday, November 1. A Partners Program, led by Chairwoman Phyllis La Zare, was also offered.



SMPTE Engineering Vice-President Ken Davies speaking at opening session.



Guest speaker James Clark delivering the conference keynote address.

Equipment Exhibit

More than 180 leading companies participated in an impressive equipment exhibit featuring the industry's latest products and newest innovations. A list of exhibitors appears at the end of this article.

In addition, the Society repeated many of the successful highlights from previous conferences, including

a Student Fair, designed to encourage young people to enter the image-making field; the distribution of Bonus Certificate Booklets, which offer various incentives, bonuses, discounts, and giveaways; the New Technology Room, where exhibitors made late-breaking announcements and unveiled their most recent products; and a literature display, featuring exhibitor product information. Among the companies participating in the New Technology Room were: Technical Film Systems, Inc.; Sanders Media Adventures; BGW Systems, Inc.; KUB Systems; Compression Labs, Inc.; Image Design Film Technology, Inc.; Ultimatte Corp.; Radio Frequency Co., Inc.; Magnasonics; CoSA; Solid State Logic; Gennum Corp.; Super 8



Stan Baron with keynote speaker Jim Clark.



The Student Fair attracted a steady stream of visitors.

Sound; Night Technologies International, and Pride Integrated Video Systems.

Welcoming Reception

All conference registrants were invited to attend the Welcoming Reception, which was held at the Gene Autry Western Heritage Museum on Friday, October 29, from 6:00 to 8:30 p.m. This event, which was arranged by Howard La Zare, FilmTec International, was judged a highlight of the conference social program. Guests enjoyed an evening of hors d'oeuvres and entertainment with a Southwestern flavor in a unique environment. Situated on 13 acres in Griffith Park in Los Angeles, the museum is a cultural and educational institution exhibiting art and artifacts related to the history of the American West.

Honors and Awards Luncheon

George Waters, director of the technical center at the European Broadcasting Union (EBU), was the guest speaker at the Honors and Awards Luncheon. Involved in broadcasting for over 35 years, Waters has made major contributions to the development of television in Ireland and has been actively engaged in international broadcasting activities. His credits include a seven-year term as director general of RTE, Ireland's national broadcasting organization,

and a year as chief executive of Europa Pan-SMPTE, the Institution of Electrical Engineers, the Institution of Engineers of Ireland, and the Irish Management Institute.

Fellows Luncheon

Joe Flaherty, senior vice-president, technology, at CBS, was the guest speaker at the SMPTE Fellows Luncheon. In his current position, Flaherty advises CBS management and its divisions on issues and strategies relating to broadcast technology. He also represents the company, nationally and internationally, with major manufacturers and on government and industry committees and organizations. He has been with the network

since 1957 and has directed its engineering and development department since 1967, first as general manager and later as vice-president and general manager. The text of his speech appears in this issue.

During the ceremonies, 15 people were elevated to SMPTE Fellow status.

Partners Program

An exciting program for partners of conference attendees was arranged by Phyllis La Zare. The itinerary of the program, which continued through Tuesday, included a stroll through Universal City Walk, one of the city's newest attractions; brunch at ROX in the Beverly Prescott Hotel; a choice of a visit to the Ronald Reagan Library or a guided tour of the new Museum of Tolerance; luncheon and a slide show at the *Queen Mary*; and a day at Universal Studios. In addition, astrologer Alice Q. Reichard was featured in a zodiac question-and-answer session.

SMPTE Banquet

Banquet/Entertainment Chairman Louis Wolf, Universal Studios, was in charge of the annual reception and banquet, which traditionally brings the conference social events to a close. Guests enjoyed a gala evening of cocktails, dinner, and entertainment, starting with a reception at the Sacramento Room of the Westin Bonaventure, and continuing

Conference Committees — Program

Editorial Vice-President

David L. George, Imagineering Ltd.

Program Chairman

Jonathan Erland, Technology Council of the Motion Picture/Television Industry

Program Topic Chairman, Multimedia

Steve Schklair, R/GA Interactive

Program Topic Chairwoman, Film

Beverly Pasterczyk, Eastman Kodak Co.

Program Topic Chairman, Video

Gavin Schutz, Image Transform Inc.

Program Topic Chairman, Special Venues

Don Iwerks, Iwerks Entertainment

Conference Committees — General Arrangements

Conference Vice President

Edward Hobson II, National TeleConsultants

General Arrangements Committee Chairman

John Brooks, Brooks/Flemming Associates

General Arrangements Committee Co-Chairman

Milt Shefter, Miljoy Enterprises

Immediate Past Arrangements Chairman

Louis Wolf, Universal Studios

Registration Chairmen

Richard W. Rodgers, RWR Consulting
Margaret Byrne, AFI

Banquet/Entertainment Chairman

Louis Wolf, Universal Studios

Welcome Reception Chairman

Howard T. La Zare, FilmTec International

Awards & Fellows Luncheon Chairman

Russ McMurtray, Eastman Kodak Co. (ret.)

Membership Chairman

Chuck Phelan, National TeleConsultants

Hospitality and Information Chairman

Gerald Finn, Pasadena City College

Message Center Chairman

Paul Van Camp, Forward Momentum

Transportation Chairman

Don McCroskey, Consultant

Assistant: Edward Liiv, Hollywood Group Services

Audio Visual/Video Facilities Chairman

Jerry Isenhower, Toyota Video Production Center

Assistant: Capp Loughboro, Capp's Electronics

Projection Co-Chairmen

Bob Burton, Consultant
Jess Daly, UCLA Dept. of Film and TV

Security Chairwoman

Gail Ringer, Ringer Video Systems

Display Co-Chairmen

David Lansdown, Iwerks Entertainment
Dave Richards, Filenet Corp.

PA and Recording Chairman

Tom Kuhn, Eastman Kodak Co.

Assistant: Bill Harrington, Audio Tech

Opening Films and Tapes Chairman

Ron Little, Consolidated Film Industries

Sponsorship Chairman

Robert Kisor, Paramount Pictures

Student Affairs Chairman

Bob Ringer, Ringer Video Systems

Partners Program Chairwoman

Phyllis La Zare

SMPTE 1993 LA Conference Office Manager

Edward Liiv, Hollywood Group Services

on to dinner in the Sacramento Room of the hotel. The Carroll Wax Orchestra provided the musical entertainment at the banquet.

Sponsored Activities

The Society would like to thank the following companies for their very generous support, without which the conference would not have been nearly as successful.

Among the general sponsors who donated cash, equipment, and/or services were: Allied Film & Video; BTS Broadcast Television Systems, Inc.; Consolidated Film Industries (CFI); Deluxe Laboratories; Dolby, Inc.; Joe Kane Productions; Ringer Video Services, Inc.; Technicolor, Inc.; MPL Film & Video, Inc.; Technical Film Systems; Pacific Title & Art Studio; Panasonic Broadcast Equipment Corp.; Toyota Motor Sales; and Universal Studios Hollywood.

Sponsors of specific functions included the following: *Banquet Reception*, Technicolor, Inc.; *Banquet Wines*, NBC, Inc.; *Banquet Entertainment*, Foto-Kem; *Coffee Club (co-sponsors)*, MCA/Universal Studios Hollywood, Brooks/Fleming Associates, Dynair Electronics, Behrend and Associates, and Sigma Electronics; *Student Fair (co-sponsors)*, ATS Acquisition, All Post Inc., Ringer Video Services, Inc., and Eastman Kodak Co.; *Fellows Reception*, Dolby Laboratories, Inc.; and *Opening Reception*, Paramount Pictures.

The Partners Program Committee would like to express its sincere gratitude to the following companies for their continued generosity, which made possible the gifts, door prizes, and some of the events in their program. Among them are the Academy of

Motion Picture Arts & Sciences; Agfa-Gevaert, N.V.; Allied Film & Video; Byers Industries; Capital Cities/ABC, Inc.; Consolidated Film Industries; Degenkolb Engineering; Deluxe Laboratories, Inc.; Eastman Kodak Co.; FilmTec International; Foto Kem/Foto-Tronics; Fuji Photo Film; Hollywood Film Co.; MCA/Universal Studios; McCune Audio Visual; Motion Picture Enterprises; Motion Picture Laboratories; Moletown; National Broadcasting Co., Inc. (NBC); Pacific Radio Electronics; Panavision; Pacific Title & Art Studio; Ringer Video Services, Inc.; Sony Corp.; Technicolor, Inc.; and Technical Film Systems, Inc.

Many thanks to all of the companies, organizations, and individuals who gave freely of their time and effort to make this conference a memorable event.

— Joyce R. Hurwitz

Welcoming Address for the 135th SMPTE Technical Conference

By SMPTE President Irwin Young

Good morning.

On behalf of the Officers and Board of Governors, I welcome you to the 135th Technical Conference of the Society of Motion Picture and Television Engineers.

The success of a conference of this size is totally dependent upon the work of our dedicated volunteers and the support they receive from the SMPTE headquarters staff. On behalf of the Society, I would like to thank Ed Hobson, our Conference Vice-President, and all our Arrangements Chairpersons who, under the direction of John Brooks, our General Arrangements Chairman, provide the support system for the operation of this conference; and, secondly, I'd like to thank David George, our Editorial Vice-President, for creating, under the direction of our Program Chairman Jon Erland, and all his Topic and Session Chairpersons, an informative technical program, titled "Integrating Technologies In The Digital Era." This program examines the application of new technology as well as continuation of the old. During the next few days, you will look at the genesis of the traditional areas of motion pictures and television, as well as investigate the newly merging formats that now make up the entertainment arena. Integrated technologies, the new wave of the motion imaging field, have virtually affected each and every facet of our industry. Digital processing technologies have brought together the video, computer, telecommunications, publishing, and entertainment industries under one roof.

Yesterday, three concurrent all-day tutorials preceded this conference. These tutorials covered digital

motion imaging, special venues, as well as a two-part tutorial international in scope done in conjunction with the International Telecommunication Union, covering Digital Terrestrial Television Broadcasting (DTTB). This conference, with its preceding tutorials and our February 1993 conference and tutorial in New York City on Advanced Television and Electronic Imaging for Film and Video, express the two principal aims of our Society: image technology and education.

It also shows the need of the Society to continue its work in standardization. We are in an ever-changing technology where the art of progress is to preserve order amid change and to preserve change amid order. It is our responsibility as a Society to insure the progress of the technology we serve. Our founder, C. Francis Jenkins, said, "Every new industry standardizes sooner or later. It is our duty as engineers to wisely direct this standardization."

On Tuesday evening, October 5, in New York, the Society received its third Emmy Award from the National Academy of Television Arts and Sciences for the creation of the "Serial Digital Video Interconnection Standard," which is the foundation of new digital production technology. All our members can be proud of this recognition, especially those who have played a direct part in its creation, no small task.

The international role of the Society becomes very apparent when serving as President. I just returned last week from Milan, Italy, where I attended the SMPTE European Conference '93. This second European conference, organized by the Italian SMPTE Section for all European members, was hosted by IBTS (International Audio, Video, Broadcasting and Telecommunications Show). The conference, held

from October 14 to 16, had four sessions covering moving toward serial digital technologies, audio for television and broadcasting, digital recording formats, and new technologies for the motion-picture industry.

In June of this year, I attended, with Lynne Robinson, our Executive Director, the 18th International Television Symposium and Technical Exhibition in Montreux, Switzerland. Thanks to Sony and our International Governor John Barry, we hosted in Montreux a reception for our members.

Prior to Montreux, I had the pleasure of attending and giving the opening address at the 25th Equipment Exhibition of Motion Picture and Television sponsored by the Motion Picture and Television Engineering Society of Japan. The exhibition took place from May 19 to 21 at Nippon Convention Center, just outside of Tokyo.

There are no borders in the world of communication. Technology has enabled people to communicate worldwide. This has broadened the membership of our Society. Presently, 27% of our almost 10,000 members representing 70 countries, as well as 9 of our 27 sections, are outside the United States. Our membership growth is in our international sections. We are truly an international Society, unique in the political world of communication, where our allegiance as members is to the advancement in theory and practice of the technologies we serve.

New technology in an industry brings about not only technical changes but changes in the economics of how business is done. To meet both these challenges, your Society has entered into an eight-year agreement, beginning in 1994, with the NAB to manage a joint fall equipment exhibition with such distinguished industry organizations as:

Text of opening address at 135th SMPTE Technical Conference in Los Angeles, presented on October 30, 1993 at the L.A. Convention Center by SMPTE President Irwin W. Young, Du Art Film Laboratories, Inc.

- The Radio, Television, News Directors Association (RTNDA), the world's largest professional organization devoted exclusively to electronic journalism. RTNDA represents local and network news executives, educators, students, and others in radio and television news business in over 20 countries.

- The Society of Broadcast Engineers (SBE), an international professional organization dedicated to the development of the broadcast engineering industry through education. SBE represents over 5,100 broadcast engineers and related industry professionals from more than 30 countries around the world.

- The National Association of Broadcasters (NAB), which serves and represents America's radio and television stations and broadcast networks. Under the new agreement, the annual SMPTE Conference will be conducted as a completely separate and independent event scheduled concurrently with the RTNDA and

SBE conferences and the NAB Radio Show.

A combined equipment exhibit will complement all four independent conferences. The first joint exhibition will be held October 12 to 15, 1994, here at the Los Angeles Convention Center.

This combined exhibit will offer manufacturers and attendees alike the advantage of one central location for viewing the latest technologies, the newest facilities, and the most up-to-date services available to the motion-imaging industries today. The Society's talent is in the ability of its staff and members to create and operate a first-class technical conference. By concentrating our efforts on the conference and using the expertise of NAB personnel to manage the exhibit, it is our sincere belief that this new arrangement will insure the Society's mission as a standard-setting body devoted to education and the application of new technology in the

motion-imaging field.

The decision to enter into this agreement was not an easy one. I would like to thank the Board of Governors for their active interest, concerns, and input during the negotiations. The Executive Committee participation was essential, and only through the combined efforts and support of the Officers and Governors could this agreement have been consummated.

The Society is deeply indebted to Charles Jablonski, our Financial Vice-President, and Lynne Robinson, our Executive Director, for the parts they played in finalizing this agreement.

The objectives of a Society are determined by its aims and goals, but what it accomplishes is determined by the dedication of its members and representatives.

"Nothing can come of nothing."

—William Shakespeare

For all those who support the Society—thank you.

Report of the Engineering Vice-President

By Kenneth P. Davies

It is the pleasant duty of the Engineering Vice-President to present each year, at this time, a synopsis of the ongoing work of the Society: where it has been, what has been accomplished, and where it is going in engineering matters — technology, developments, and standards that vitally affect those interests that it serves. As I come to the end of my first term of office, I would also share with you some of my concerns regarding the future of engineering work in the Society.

One has only to look at the pro-

gram for this exciting conference to see the rate at which technology is advancing. I am sure that the keynote address will bring new insights into the directions for the future. A tour of the exhibits will show how rapidly the advances are being incorporated in equipment to give our industry far better ways to do the conventional work and revolutionary ways to do things as yet impossible. The tutorials and workshops attest to the great interest of all SMPTE members, and potential members, in discovering for themselves how to gain the advantage from all of these advances.

SMPTE Standards, Recommended Practices, and Engineering Guidelines form, in large measure, the basis for much of this. Without

standards, the task of getting it all together and making it work as a system would be far more difficult, costly, and with highly constrained purchasing options and operational flexibility. Well-designed and written standards guide the present and can enable the future.

What has been accomplished in the 12 months since I reported to you at the 134th Conference in Toronto?

The Year's Accomplishments

The Engineering Committees at all levels have continued to work effectively and in most cases, speedily, to produce the new documents required in this rapidly evolving world of digital production for television, motion pictures, and

Text of address by SMPTE Engineering Vice-President Kenneth P. Davies, Canadian Broadcasting Corp., presented at the 135th SMPTE Technical Conference in Los Angeles on October 30, 1994.

multimedia. In addition, the five-year review of existing documents ensures that they are relevant and up to date. In all, 24 new or revised standards were produced, 17 Recommended Practices, and 5 Engineering Guidelines. This is a real credit to all involved given the increasing complexity of the technical matters involved, the expanding community of interest in many of them, and the limited resources available. SMPTE documents now define most of the essential parameters of 525-line, and many of them for 625-line television systems, in both analog and digital forms and have greatly eased the widespread introduction of digital technology into production activities.

In recognition of its important contribution to the television industry, on October 5th the Society received an Emmy for its work in standardizing the Serial Digital Interface, the key element in practical studio distribution of digital video signals. The many contributors to this work, and in particular Peter Symes, who chaired the Working Group for the Technology Committee of Merrill Weiss, can take great pride in this award.

The past year has a few dark patches also. I would like to recognize one well-known participant in our work who, sadly, and to my personal sorrow, passed away this past July. He has made many contributions to the Society. A visionary, recognizing the value of digital video and convergence with computers while most were barely aware of them. A tireless worker for the SMPTE, chairing committees, trying innovative ways to achieve important results, and an example to his colleagues, demanding scientific precision and abhorring conflict and ambiguity. He was also a friend to many of you and will be sorely missed. Let us pause for a minute to remember Tom Meyer.

Current Activities

I can report to you that there are currently in process about 60 projects leading to new engineering documents in the key areas of digital motion imaging and associated

matters. This is a critical time in the development of ATV and other digital delivery mechanisms to the home, and the SMPTE has a clear task to ensure that the production processes for all media are defined and that efficient interfaces among the production processes and to the various delivery channels are specified. A good level of cooperation thus exists with the ATSC, the IEEE, the FCC Advisory Committee (ACATS), and international bodies, including the ITU and ISO/IEC MPEG.

Current activities that will be important to the future of the SMPTE constituency include:

- Studies in colorimetry and transfer characteristics to improve the color rendition and uniformity of electronic imaging and the interface with film.

- Ongoing work to define production formats and interfaces suitable for production of material for future ATV and other digital delivery systems, both live (real time), recorded, and non-real time (multimedia). Included in this work is a substantial contribution to interoperability of digital image systems.

- Studies of appropriate methods for the long-term storage and preservation of film and television program material, an increasingly important area given the immense investments involved.

- Working Group activities leading to Recommended Practices and Guidelines for the operation and testing of digital television systems. Completion of this work will make these systems more "user friendly" and flexible to use than analog systems ever were.

- Standardization activities and studies of new digital tape recording formats for conventional and high-definition television. Such systems may include the use of reversible compression techniques to improve cost/performance ratios, an area that poses fundamental new questions for the creation of standards.

- Studies of theatrical image display systems to ensure that film and video sources achieve optimum results.

- Continuing studies of digital

methods for motion-picture sound recording and recovery.

The Future

In my last address in Toronto, I outlined the future challenges that faced the SMPTE, underscoring the need for planning and review to keep the engineering activities relevant and efficient; the need for the SMPTE to exert leadership in its work and to accept and manage the risks involved; the need to recognize the expanding community of interest in the work, taking in new applications and industries. In the past 12 months, I believe that all of these have been well addressed and that the future results will bear this out.

Today, however, I would like to take a moment to consider the very nature and value of standards in the changing world in which we all must operate and compete.

In the industries that the Society serves, the 1990s will go down as the dawning of the digital age, the beginning of a new era in distribution, based on digital communications and the time of globalization. They may also be remembered as a time of increasing focus on costs and profitability, as globalization and amazing increases in distribution channel capacity bring on new competition and increasing specialization of programming and production. The engineering activities of the SMPTE must adapt, in fact are already adapting quite well to this new environment, but the industries that support and benefit from these activities must also respond.

A few comments may help the understanding of this changing perspective.

1. The standards and other engineering documents, such as Recommended Practices and Guidelines, are voluntary standards achieved by the consensus of the interested parties and after a rigorous check of such additional elements as technical soundness, nonduplication, public interest, and fairness. Such standards are not mandatory or have the force of law anywhere, as do government regulations, nor are they the subject of international treaties, as are some

documents of ITU, though some SMPTE standards may, however, become the basis of international agreements. These standards represent a documented agreement that, for instance, is beneficial to suppliers and their customers, to those wishing to exchange programming or to assist in assessing performance.

SMPTE standards are, in essence, enabling documents and do not mandate a single approach or, particularly, do not preclude other approaches. In some instances, SMPTE documents may include two or more approaches, but each is unambiguously documented and, to the extent possible, harmonized among them. It is unlikely that this fundamental nature of SMPTE standards will change, being rooted in the nature of the SMPTE and the open, participatory, American way of doing things.

2. Increasingly, SMPTE documents are of wide scope, with application in a variety of applications and industries. This is essential as the technologies of motion pictures, television, computers, and telecommunications converge in this decade, driven by digital processing and economies of scale. The consequences of this are a more difficult task in getting to consensus among the interests, the need for wider expertise, and the need for liaison with other groups working on standards in allied areas. The benefits accrue in commonality of equipments and components, in economies of scale, in increased business opportunities, and in opening up new areas of application.

The SMPTE has recognized and responded to these trends by defining and undertaking projects that reflect this new base, by seeking out and bringing into the work representation from the new industries involved, and by the creation of a standards-development environment that is friendly to this innovation.

While it is easy to feel nostalgia for the former, rather narrow definition of the SMPTE's sphere of interest, if we are to serve the mandate

faithfully, the standards developed must meet fully the reality of this decade and beyond, thus demanding the expansionist approach followed for the last years.

3. Motion imaging is a global activity. Its components, electronics, television, motion pictures, computers, and telecommunications, are now part of a converging web of activities. Standards development can hardly be less than global, if it is to be effective.

The SMPTE is also becoming increasingly international in all its activities, and in the creation of voluntary standards for its constituency, reaches out to interests worldwide. Its Working Groups invite participation from all affected industries and areas while the increasing use of telecommunications is removing the time and distance barriers to contribution. While some parts of the world still seek local or regional standards, for a number of reasons, the SMPTE seeks standards of global application, the key to the future well-being of the industries we serve.

4. The economic importance of standards is easily demonstrated and in an era of global marketing and increasing competition, with emphasis on interconnectable and interoperable systems, standards are an essential part of business. Participation in standards development can then be seen, not as a cost having questionable value but as an investment directed towards the future success of the product, be it equipment, programming or services, and the organization. Standards development within the SMPTE depends on the contribution of a high level of technical expertise from various disciplines and a willingness to cooperate in the reaching of a consensus beneficial to suppliers and users alike. It is essential that these contributions are maintained and seen in the appropriate priority in a time of shrinking resources.

The SMPTE has made great strides in raising the efficiency, effectiveness, and timeliness of the process but, as a voluntary organi-

zation, it depends on the participation of the affected constituency for the technical contributions. There is a challenge evident here — one that cannot be avoided. Standards form the basis of the industries we serve, but those industries must invest the necessary resources to develop effective standards to market their value. The Society is ready to organize and manage the work and to publish and support the finished documents, but without the cooperation of industry cannot fulfill the heavy obligations that are placed on it by these same interests.

It is clear that standards are an essential element of the future of motion pictures, television, and all the new applications of motion imaging. They have major effects on the capability of suppliers to compete, on the ability of users to select freely the best equipment for the work at hand, and on the confidence of suppliers of programming and other software for motion imaging that it can be reproduced reliably and with the highest quality in all global markets. Standards are a valuable part of every business. Should they not be seen that way in the competition for scarce resources in budget and appropriate provisions made for their support? To all who use SMPTE standards, we count on you to enable the Society to continue to serve you.

Conclusion

Finally, may I express my appreciation for the support that I have received in fulfilling this term as Engineering Vice-President. To all the participants, Chairs, and Secretaries of Committees; to the Engineering Directors, Rami Mina and David Fibush; to the Headquarters staff, ably led by Si Becker, and to all members for their confidence.

Through the efforts of all, the SMPTE has continued to be the leader in standards for film, television, and motion imaging, and is well positioned to continue and expand that role in the years ahead.

Thank you.

SMPTE Board of Governors Meeting

The SMPTE Board of Governors met on Thursday, October 28, at the Westin Bonaventure Hotel with 33 of the 40 members present, in addition to several Section Chairmen, several Governors-Elect, and one former President, Robert M. Smith. As the governing body of the

Society, the Board has the responsibility of deciding the policy that determines all Society activities within the framework of the SMPTE Constitution and Bylaws. The Board of Governors holds three meetings each year, one of which coincides with the annual SMPTE Technical

Conference. Reports of the various officers were given at the meeting, and the results of the election of new officers and governors for the 1994-95 term were announced. A report on the election results will appear in a forthcoming issue of the *Journal*.



The SMPTE Board of Governors in session: (L-R) Lynne Robinson, Ken Davies, David George, Blaine Baker, Irwin Young, John Carlson, Ed Hobson, and Charles Jablonski.



Robert J. Ringer received a clock from SMPTE President Irwin Young in recognition of his retirement from the Board of Governors.



Donald C. McCroskey displays the gift clock he received in honor of his retirement from the Board of Governors.

Press Briefing



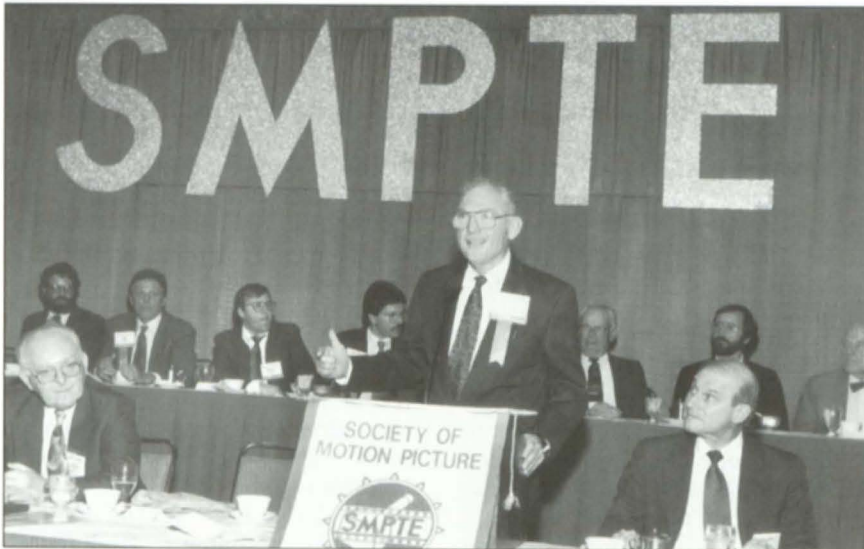
Speaking at the press briefing during the conference: (L-R) Program Chairman Jon Erland; Engineering Vice-President Kenneth Davies; President Irwin Young; Conference Vice-President Ed Hobson; and Editorial Vice-President David George.

Honors and Awards Luncheon

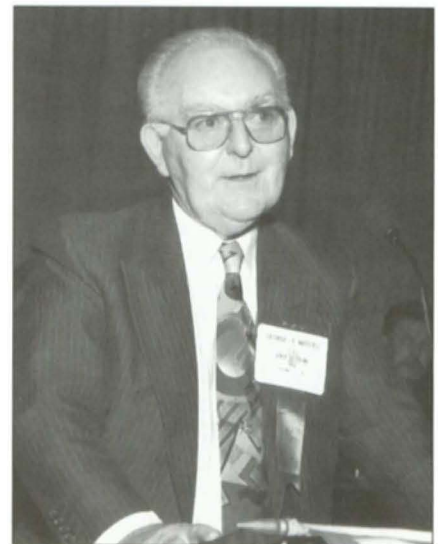
The annual Honors and Awards Luncheon, held at noon on October 30, at Petree Hall in the Convention Center, was presided over by SMPTE President Irwin W. Young.

The text of his speech appears in this issue. A reception preceded the luncheon. The guest speaker at the luncheon was George T. Waters, director of the technical department of the

European Broadcasting Union (EBU). At the luncheon the Society's awards were presented to the various recipients.



SMPTE President Irwin Young introducing the dais at the Honors and Awards Luncheon.



Guest speaker George T. Waters at the Honors and Awards Luncheon.

The Honors and Awards Presentations of 1993

The Society presents a number of awards in recognition of outstanding achievements and confers certain grades of achievement annually. These awards have been created over a period of years.

Certain practices and rules are common to all these awards. Award Committees consist of Honorary, Fellow, or Active Members of the Society appointed annually by the President and confirmed by the

Board of Governors. The Journal Award Committee is appointed by the Editorial Vice-President. Membership in the Society is not a prerequisite for an award.

Any member of the Society is enti-



Some of the Honors and Awards winners of 1993: (seated, L-R) Edwin Catmull, Robert J. Ringer, David Keighly, Stephen B. Cook, Hy Badler, Fung Fai Lam, Randall Hoffner; (standing, L-R) George T. Waters, Joseph Flaherty, Bob Elkind, Kenneth Parulski, C. Bradley Hunt, LeRoy DeMarsh, Glenn Kennel, Richard Leacock, Raymond Ravizza, and David Fibush.

tled to make a nomination for an award. Such nominations should be made in writing to the chairman of the appropriate committee, giving the reason why the writer believes the award is justified. The committees forward their reports to the Secretary/Treasurer of the Society in time for presentation to the Board of Governors at their midyear meeting. Normally, awards are presented at the national conference of the Society following approval of the award by the Board of Governors.

The highest award and greatest distinction that can be conferred by the Society is Honorary Membership, which includes eventual inscription on the Honor Roll of the Society. The SMPTE Progress Medal is the premier medal award of the Society. The Agfa-Gevaert Gold Medal, the Eastman Kodak Gold Medal, the Fuji Gold Medal, the John Grierson International Gold Medal, the Journal Award, Journal Certificates, the Technicolor/Herbert T. Kalmus Gold Medal, the Presidential Proclamation, the

Outstanding Service to the Society Award, the Alexander M. Poniatoff Gold Medal, the David Sarnoff Medal, and the Samuel L. Warner Memorial Medal all recognize achievement in the special fields of accomplishment described in the following pages.

The Citation for Outstanding Service to the Society

The purpose of this citation is to recognize individuals for dedicated service to the Society over a sustained period of time.

The 1993 Citation for Outstanding Service is presented to the following:

Herman (Hy) Badler, Washington Broadcast Consultants, for his many years of efforts in both the New York and Washington Sections and his work as the spearhead for numerous and all-day seminars in those sections; **Steve Cook**, Audio Services Corp., for his dedicated efforts in the Toronto Section from 1969 to the present, and his work on the 1971, 1986, and 1990 Toronto/Rochester/Montreal/Ottawa Mini-Conferences;

and **Fung Fai Lam**, Sony of Canada, Ltd., for his years of work in the Toronto Section and at the 1984 Television Conference, the 1990 Mini-Conference, and as General Arrangements Chairman of the 134th Technical Conference.

The Presidential Proclamation

It is the purpose of this award to recognize individuals of established and outstanding status and reputation in the motion-picture and television industries worldwide.

The 1993 Presidential Proclamation is presented to **Richard C. Kirby**, International Telecommunication Union (ITU), in recognition of his years of dedicated service to the international community and his innovative leadership in the advancement of the telecommunications sciences and the pursuit of global standards; and **George T. Waters**, European Broadcasting Union (EBU), for his leadership in expanding the interchange of technical information between the EBU and the SMPTE, thereby fostering and

increasing the opportunities for achieving compatible worldwide television standards.

The Journal Award

One Journal Award shall be presented to the author(s) of the most outstanding paper originally published in the *Journal* of the Society during the preceding calendar year. In addition, up to two Journal Certificates may be presented to the author(s) of the paper(s) receiving the next highest scores. Papers published in the *Journal* are eligible only if any previous publication was by the Society.

The 1992 Journal Award is presented to **David K. Fibush** and **Bob Elkind**, Tektronix, Inc., for their paper, "Test and Measurement of Serial Digital Television Signals," which was published in the September 1992 issue of the *Journal*.

The Journal Certificate Award

The 1992 Journal Certificate Award is presented to **Kenneth A. Parulski** and **C. Bradley Hunt**, Eastman Kodak Co., and **LeRoy E. DeMarsh**, Consultant, for their paper, "Source-Adaptive Encoding Options for HDTV and NTSC," which was published in the October 1992 issue of the *Journal*.

The Agfa-Gevaert Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing the individual's outstanding leadership, inventiveness, and/or other achievements in the research, development, or engineering of new techniques and/or equipment, which result in a significant improvement to the interface between motion-picture and television imaging systems, whereby the combined advantages both contribute to the further development of visual communications systems.

The 1993 Agfa-Gevaert Gold Medal Award is presented to **Glenn L. Kennel**, Eastman Kodak Co., in recognition of his contributions in developing a better understanding of the film-video interface through numerous technical papers and arti-

cles, and of his leadership in the development of a high-resolution electronic film intermediate system. A film resolution electronic intermediate process opens the door to whole new creative possibilities in the entertainment and educational motion-imaging industries. It also presents, for the first time, a truly high-quality means of film restoration not possible through conventional optical photographic or video processes.

Eastman Kodak Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding contributions that lead to new or unique educational programs utilizing motion pictures, television, high-speed and instrumentation photography, or other photographic sciences. The award shall recognize developments in equipment, systems, or instructional applications that result in advancing the education process at any or all levels.

The 1993 Eastman Kodak Gold Medal is awarded to **Robert J. Ringer**, in recognition of his significant contributions in furthering the educational and training processes in both the television and motion-picture industries through seminar and tutorial presentations.

The Fuji Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding engineering achievements in the design and development of new or enhanced techniques and/or equipment that have contributed significantly to the advancement of photographic or electronic image origination.

The 1993 Fuji Gold Medal Award is presented to **Dr. Edwin Catmull**, Pixar Corp., for his outstanding contributions in the field of computer-generated imaging, particularly for the development of the software known as RenderMan.

The John Grierson International Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing

significant technical achievements related to the production of documentary motion-picture films.

The 1993 John Grierson Gold Medal Award is presented to **Richard Leacock**, Consultant, in recognition of his significant contributions to the art and technology of documentary filmmaking. His quest to design ever lighter and affordable camera equipment has made it possible for documentary cinematographers to be less intrusive and to capture the actual flow of filmed life.

As a leading force in the movement known as "direct camera," he has sought innovations in the use of technologies to benefit his art form. He has challenged equipment manufacturers in making tools of the trade that fit the needs of filmmakers, particularly in the areas of documentaries.

The Technicolor/Herbert T. Kalmus Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding contributions in the development of color films, processing, techniques, or equipment useful in making color motion-pictures for theater or television use.

The 1993 Technicolor/Herbert T. Kalmus Gold Medal Award is presented to **David Keighley**, David Keighley Productions Ltd., in recognition of his outstanding contributions to Imax 70mm print quality control and of his pioneering efforts on making high-quality Imax 70mm release prints through the interpositive/internegative system.

The Alexander M. Poniatoff Gold Medal Award for Technical Excellence

It is the purpose of this award to honor the recipient by recognizing outstanding technical excellence of contributions in the research or development of new techniques and/or equipment that have contributed significantly to the advancement of audio or television magnetic recording and reproduction.

The 1993 Alexander M. Poniatoff Gold Medal Award is presented to **Raymond F. Ravizza**, in recognition of his contributions to videotape

recording technology for over 25 years. He played the key role in development of the Automatic Scan Tracking Servo System for helical scan television tape recorders, for which he has been awarded 12 patents, 9 as sole inventor. His scan tracking system design, or variants thereof, are used in all professional television recorders and some S-VHS recorders in use today.

The SMPTE Progress Medal

The premier medal award of the Society, the SMPTE Progress Medal recognizes outstanding technical contributions to the progress of engineering phases of the motion-picture and/or television industries.

The 1993 Progress Medal is presented to **LeRoy E. DeMarsh**, Consultant, who has for more than 20 years made valuable contributions to the theory and to the practical understanding of system colorimetry for motion-picture film, for advanced television, and for digitized still image storage for CD-ROM. He is recognized throughout the world as an outstanding expert in the science of colorimetry. He has been actively involved in the work of SMPTE engineering committees and has written extensively on the subject of colorimetry. His expertise has been one

of direct and lasting benefit to standards efforts of the SMPTE, the CCIR, and the Advanced Television Systems Committee.

The David Sarnoff Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding contributions in the development of new techniques or equipment that have contributed to the improvement of the engineering phases of television, including theater television.

The 1993 David Sarnoff Medal Award is presented to **Charles A. Poynton**, Sun Microsystems Computer Inc., who has contributed significant concepts to the definition and standardization of advanced video technologies, particularly for systems to be used in the digital HDTV studios of the future. He has actively participated in the work of SMPTE committees charged with defining advanced television systems and has presented many papers concerned with the details of such systems. He has been unwavering in his efforts to harmonize the scanning parameters, digital image representation, and systems colorimetry used both in the computer industry and the television industry.

Honorary Membership

The distinction of Honorary Membership in the Society is presented to living pioneers whose basic contributions, when examined through the perspective of time, represent a substantial forward step in the recorded history of the arts and sciences with which the Society is most concerned. This is the highest grade of membership and greatest distinction that can be conferred by the Society.

The 1993 Honorary Membership is presented to **Joseph A. Flaherty**, CBS, Inc., in recognition of his worldwide efforts to advance the electronic medium. He received an Emmy Award citation for the CBS Minicam color television camera. Other recognitions include a 1975 Technical Emmy Award, the 1979 Montreux Achievement Gold Medal, the 1983 NAB Engineering Award, and the 1984 SMPTE Progress Medal, which recognized his outstanding contributions to the television industry. He was instrumental in the founding of the Advanced Television Systems Committee, and is currently chairman of the planning subcommittee in the FCC's advisory committee on advanced television service.

Fellows Luncheon

The Fellows Luncheon was held on Saturday, October 31, at Petree Hall in the Convention Center. The luncheon was held to honor newly elected Fellows, to introduce them to their peers, and to present them with plaques honoring their new status. Attendance was limited to Fellows and Life Fellows. A reception, sponsored by Dolby Laboratories, preceded the luncheon.

Joseph A. Flaherty, senior vice-president, technology, CBS, Inc., was the guest speaker at the luncheon. The text of his address appears in this issue.



President Irwin Young speaking at the Fellows Luncheon. Seated at the dais are Lynne Robinson, Stan Baron, guest speaker Joseph Flaherty, and Blaine Baker.

Isn't This Where We Should Go?

By Joseph A. Flaherty

When last I addressed an SMPTE luncheon in 1988, the title was "Isn't This Where We Came In?" Today, I'm asking, "Isn't This Where We Should Go?" And wherever we go, who better to take us there than you Fellows?

Fellows, this senior group, these leaders all, SMPTE's finest, their "Tete de Cuvee," long of tooth, and gray of beard, broad of experience, with knowledge feared, a favorite audience with patience revered; but actually, who and what are Fellows?

We hear about fellow travelers, fellow anarchists, and even fellow criminals, but we never hear of just fellow Fellows.

Webster defines a fellow as a man or boy, but not a lady; an associate or an equal, too general; a person of a lower social order, a coarse or rough man (we may be getting closer); and finally, a member of a "learned" society. Comforting to those of us men or boys who are members of a "learned" society, but what about our lady Fellows? Isn't that a contradiction in terms?

Ladies cannot be men or boys — by definition, and most of us would not consider the ladies members of a lower social order — not any more, anyway. Aren't you uncomfortable thinking of our lady colleagues as "fellows"? Don't you think that we could find a less sexist name?

One wag suggested "Comrades," but that name has such communist overtones, and while the communists don't need the name any more, somehow it's just not right. "Partners"? No, the legal profession has popularized "Partner," and we wouldn't want to be called anything lawyers are called. "Fellow Persons" is redundant, and besides, it's too long. "Mr. or Ms. Fellow" sounds pretentious and strained.



Fellows Luncheon guest speaker Joseph A. Flaherty delivering his address.

Nevertheless, we should take this matter seriously. While we now have only four female Fellows, their ranks will certainly swell in years to come, and the SMPTE is unprepared. Having noted this, I know our Board will take the issue under advisement. If so, they will probably appoint a committee or an ad hoc task force to solicit suggestions and report back to the Board where the topic will be discussed — and discussed — and discussed! Parkinson's Law revisited! I can see by the looks on some of your faces that you've been to SMPTE Board meetings.

Anyway, whether you're Fellows, Ms. Fellows, or fellow persons, I am delighted to be here with you once again to have the chance to share some thoughts with you.

That's especially important to me, because the SMPTE has been intertwined with my professional career since its beginning. In fact, my first contact with the SMPTE was while I was serving in the U.S. Army Signal Corps at what was then the Signal Corps Photographic Center in Long Island City. I was working for George Lewin, Chief of the Sound Branch. George was a famous and dedicated SMPTE member and introduced many

of us newcomers to the SMPTE.

I was so enthralled with the Society that I even courted my dear wife by taking her to SMPTE New York Section meetings. It's a wonder she ever married me.

Actually, I became a SMPTE member in 1955 and was given a fellowship in 1966. In 1974 the Society honored me with the David Sarnoff Gold Medal and in 1984 the Progress Medal. Yesterday, I received the Society's Honorary Membership.

It's humbling indeed to have received so much from those for whom I have so much respect, and I am reminded of Albert Einstein's description of the man who receives. He said: "A successful man is he that receives a great deal more from his fellow men, usually incomparably more, than corresponds to his service to them. The value of a man, however, should be seen in what he gives and not in what he is able to receive."

Over the years, in good times and in bad, I've tried to give my best to the SMPTE. It has always been a pleasure for me to give time, dedication, and support to the Society, and as part of that work, I have published many articles, given countless lectures, and conducted beaucoup seminars, but it wasn't always easy.

My first SMPTE publication was rejected by a tough editor with a note that read:

"Your manuscript is both good and original, but the part that's good isn't original, and the part that's original isn't good." Not an auspicious start!

Moreover, as those of you who have written papers know, doing so in a timely manner is, like the road to Hell, paved with good intentions. Usually, it's the pressure of a final deadline that gets it written.

Once, while I was at university, I rushed into a professor's office to submit a late assignment, explaining that it was late because, "I work better under pressure." In typical Jesuit style the professor said, "No, it's not that

Text of guest speaker's address presented October 31, 1993, by Joseph A. Flaherty, CBS, Inc., at the SMPTE Fellows Luncheon during the 135th SMPTE Technical Conference in Los Angeles.

you work better under pressure, it's that without pressure you don't work at all!" *C'est vrai, C'est vrai!* I am a candidate for Procrastinators Anonymous.

Undiscouraged, I pressed on, and some years later, having produced articles on what were then futuristic technologies, such as electronic cinematography, electronic newsgathering, off-line videotape editing, small-format videotape, etc., the BBC's Charlie Sandbank asked one day if any of my five children had followed in my professional footsteps. I told Charlie that my two oldest sons were in television broadcasting, but that the others were not, and that Tim graduated in creative writing and was writing science fiction. "Oh!" said Charlie, "He has followed in your footsteps; you've been writing science fiction for years."

Science fiction indeed! But then a man gazing at the stars is proverbially at the mercy of the puddles in the road.

Later, another European colleague even threw some light on my ancestral background. When Dr. George Waters, yesterday's luncheon speaker, was Director General of Irish television, he reminded me that the ancient O'Flahertys came from the hills of Connomara in the West of Ireland, north of City Galway, then a fortified merchant city. Since the O'Flahertys were fond of storming the city and looting its coffers, the residents decorated the West gate of City Galway with a stone, now preserved in a museum. Carved in the stone was the city's coat of arms, the date 1633, and the inscription: "From the ferocious O'Flahertys, God defend us."

Undaunted and unferocious, I'm here within your gates today, to ask you a serious question: "Isn't this where we should go?" By "we" I mean us and our SMPTE.

When Dwight Eisenhower became the President of Columbia University in 1945, he called a faculty meeting and explained that he did so in order to meet the employees of the university. Whereupon one of the professors said: "Mr. President, we are not the employees of the University; we are the University."

Similarly, we are not members of the SMPTE — we are the SMPTE! Its future, its direction, and its growth are

up to us — not to the Board, not to the headquarters staff, not to technical committees, but up to us.

In times of recession, maturing businesses, and narrow profit margins, value judgements are more carefully made by every business. In such times, SMPTE must be seen as absolutely essential to its constituency to maintain membership and support for standards activities, conferences, seminars, and exhibits.

Yet, in recent years, we have seen a steady erosion of that support and today find need to reduce our professional headquarters staff and to combine our exhibit, our main source of income, with other organizations to survive. Is this erosion of support solely an uncontrollable result of the times, or might it also be a result our failure to adequately serve our constituency? Does our constituency still consider the SMPTE "relevant"?

Our membership, our *Journal*, our standards, and thereby our support, has heretofore been based solely on our total dedication to the motion-picture and entertainment television industries. Does that constituency believe that our total dedication is waning?

Today, as technology explodes around us generating a plethora of imaging technologies, and we struggle to find SMPTE's proper place in the landscape of 21st-century imaging, shall we embrace imaging technologies beyond motion pictures and entertainment television? Would we be able to properly serve many other new imaging technologies, and therein find the necessary additional support in new membership, expanded exhibits, and new supporting members to justify the expansion?

To be sure, growth is the surest sign of life, and I'll be the last to oppose it, but uncontrolled growth is called cancer!

Will the new imaging fields see the SMPTE as important enough to their businesses to support the Society, or do they have, or will they have, their own technical societies and conferences more attuned to their special needs? Without new support of those that we would serve, we can expect less support from those that we have served. Do you think that the motion-

picture and television industries will long subsidize ventures in new fields, fields with distant business applications, or fields actually competitive to their existing business interests?

While motion-picture and television businesses must look ahead to the future, they must still earn their profits on today's technologies, and manufacturers find exhibits valuable only if they attract buyers for today's products. Too much futurism may appeal to a dedicated crowd, but not to the one that runs today's entertainment industry and supports SMPTE exhibits.

In the end, even a scientific and technical organization is a business. Profit or non-profit, bills must be paid and skilled headquarters staff supported. Shouldn't those who would have SMPTE expertise and burden the Society's limited manpower and financial resources exchange a quid pro quo through supporting membership, broad individual membership, and conference and exhibit support?

Gratuitous expansion and "do gooder" service will, as their very shadows, escort bankruptcy to SMPTE's door.

Shouldn't we look first to SMPTE's base business — motion pictures and entertainment television, and to why SMPTE support erodes? After all, motion pictures and entertainment television, including cable, DBS, and terrestrial television, are alive, well, and living in American theaters and in American homes.

There are now 25,105 motion-picture screens — an all-time high, a total industry employment of nearly 400,000 people with annual cinema releases of over 400 pictures, of which 140 are MPAA releases at an average cost of \$28 million each. The advertising budgets are \$11.5 million and print costs of \$2 million for each of these MPAA releases. There is money for the SMPTE if, and only if, the Society is seen to be vital to the motion-picture business.

Similarly, in entertainment television today, 95.8 million television households view television an average of over seven hours per day, and this figure has been steady for five years. Total cable revenues for 1991 were \$20 billion, with the four network revenues at nearly \$10 billion. VCR penetration is nearly 80% of television

homes, with prerecorded videocassette sales at 375 million units per year, up 31% since 1989. For these, the consumer annually spends \$15 billion in purchase and rental fees.

DBS services will be launched this year by Hughes DirectTV and Hubbard Broadcasting's USSB, both with optimistic penetration and profit forecasts.

Moreover, these motion-picture and entertainment television companies face a wholesale conversion to digital production and post-production facilities, nonlinear recording and editing equipment for which standards will be required in what may become a tapeless industry, interactive and multimedia systems for which standards will also be required, and, finally, a conversion to HDTV.

SMPTE should be seen as absolutely essential to these businesses. Nevertheless, this doesn't seem to be the case to the extent necessary. Can this lack of interest and support be written off solely to the recession and business maturity? Could it be that our conferences no longer attract the engineering and executive "decision makers" that make the exhibits profitable for the manufacturers or that our standards efforts do not fully represent the priorities of our "entertainment" constituency? Do we really know their priorities?

In a recent speech, CBS Broadcast Group President, Howard Stringer said:

"We all read stories of how interactive computer networks will liberate people to do their jobs at home and how we will soon be able to escape into isolated virtual reality. Despite these hi-tech curiosities, for most Americans the same urge that drives us to experience the latest hit movies and records will continue to have us share last night's "Murphy Brown" and "Northern Exposure" — and to talk about it over the proverbial water cooler at work, at school, and at the gym."

In short, since the Greek theater and Caesar's Colosseums, people have wanted to be entertained and informed at the end of a hard day's work. Today, most people don't seem to want to talk to, act on, or interact with their television set. They just want to watch it!

The most recent evidence in support of this was the Cerritos, California, interactive television experiment which, like others before it, flopped. The Los Angeles Times reported this way: "Apparently, when living along the Information Highway, you don't even notice it. After four years in the multimedia fast lane, Cerritos residents still spend more time on the Artesia Freeway than on the data expressway.

"It was not supposed to be that way. Four years ago, GTE Chairman James L. Johnson ... proclaimed that the ... pancake flat suburb would be the site of the most sweeping test yet of interactive TV, a test that would 'shape future telecommunications for the whole country.'

"Michael Noll, dean of UCS's Annenberg School of Communications, summarized the Cerritos experiment most succinctly. He said: 'It bombed.' "

Will such interactive services succeed someday? Probably. Maybe the new Viacom/AT&T experiment in Castro Valley will meet with greater success, or perhaps success will await a more computer literate audience. The point is, that the time lag between invention, development, and successful business application is measured in years, and sometimes in decades. Standards setting must fall between invention and application. Research and early development is the domain of the laboratories and manufacturers, not standards organizations.

Standards must not be set too soon, nor too late. Standards work undertaken too soon produces few results and is seen by the business community as an expensive waste of time and a squandering of technical resources. Standards set too late result in multiple and de facto standards. Thus, the timeliness of standards work is vital to the success of the effort, and therefore, it is a matter of good management and common sense.

I'm sure that those responsible for mapping SMPTE's future have, and do, evaluate these issues. Nevertheless, the importance of doing so increases exponentially with the accelerating developments in the electronic imaging field. It must remain of the highest priority, for if we don't

know where we are going, any road will take us there.

In short, before we migrate too far beyond our support base, shouldn't we ask: "Is this where we should we go?"

To conclude, and with apologies to Charlie Osgood, the "poet laureate" of CBS, I offer this little Ode To SMPTE Future:

Back in the glorious days of yore,
Before that T the SMPE did gore,
Celluloid, silver, and the sprocket hole
Were the Society's very soul.

Then came that big T word
And with it that modern TV herd.
Too big for us to long ignore,
The T made five letters of our four.

SMPTE became SMPE's name,
And SMPTE grew to worldwide fame.
Members, journals, and standards came,
For SMPTE leadership to retain.

At first, to our board a Megahertz
Meant a big car rental firm.
Today our lexicon embraces Gigahertz,
With terabits a brand new term.

But with technology moving at a blinding
pace
Will SMPTE continue to lead the race,
Or will other groups take its place,
And promulgate standards with a brand
new face?

Might computer technology
Interoperate the SMPTE,
And make it the SMP-C-TE,
Or the S-C-TE,
Or just the S-C-E?

Could be, lest our goals are clear,
And today, that's not the case I fear.
In diverse fields we try to lead,
Shorting those we serve and what they
need.

Today we're cinema, film, and television
folks,
Not defense, transmission, or computer
blokes.
Should we shoulder newer yokes,
And wear their many colored cloaks?

Such would require broad new support,
Or certain disaster would we court.
Even our exhibits we now export,
As funding is already short.

Our sole support from entertainment comes.
Will others bring us larger sums,
Or merely offer us their crumbs?
New work demands financial premiums.

Our traditional support now erodes,
As we travel these new roads.
Can we carry new financial loads
Without bigger red-ink episodes?
Can we, and should we, be "all-to-all,"
Or, like Humpty Dumpty, will we fall?
Is a narrower field our proper call,
Where, as in the past, we can give our all?

Yes or No? Only you can say,
But think it out, and say today.
Thoughtful priorities must post our way,
Not the technologist's latest foray,
For they could lead us far astray,
And bring us to a final doomsday.
Study hard until you know
How far our funds and talent go,

And if there is something we must forego,
Do whatever is *apropos*.

Technicians will always down new path
ways roam,
Without a thought of coming home.
Management, with some aplomb,
Like mothers, must guide their offspring home.
Information highways will not be by
SMPTE laid.
Such roads will be by bigger powers and
politicians made.

The SMPTE Board must clearly plot a
route,
Or fail in what their job's about,

And if they fail, then have no doubt
There'll be more confusion hereabout.

Today, let's strengthen our Society,
For the future isn't what it used to be!

Among the questions I've posed to you
There may be some that are just cuckoo
And others that you may just pooh-pooh,
But my intentions don't misconstrue.

It is with friendship true
That I suggest things for your review.
And now, as I must say *adieu*,
I leave you with the residue,
And simply say *merci beaucoup!*

New Fellows of the Society

At the Fellows Luncheon, following an address by guest speaker Joseph A. Flaherty, CBS., Inc., 15 SMPTE members were elevated to the rank of Fellow. A Fellow of the Society is one who has, by proficiency and contributions, attained an outstanding rank among engineers or executives in the motion-picture, television, or related industries.

The following new Fellows were

introduced at the luncheon: Paul Berger, CBS Television Network; John A. Carlson, Monaco Film and Video; Jean F. Chatel, Thomson Laboratoires Electronique de Rennes (Thomson CSF/LER); Robert W. Eberenz, R.W.E. Engineering Co.; John Gates, Gates Service Group, Inc.; Kaarlo Juhani (Jukka) Hamalainen, Matsushita Applied Research Laboratory (MARL); William W. Hargreaves, Consultant; Randall

Hoffner, NBC, Inc.; Ronald W. Jarvis, Technicolor Inc.; Keiichi Kubota, NHK (Japan Broadcasting Corp.); F. Jack Napor, WRS Motion Picture and Video Laboratory; D. B. Nihalsingha, Tele-Cine Ltd.; Mark S. Richer, Public Broadcasting Service (PBS); Jose Luis Tejerina, Retevision; and Ed H. Zwaneveld, National Film Board of Canada.



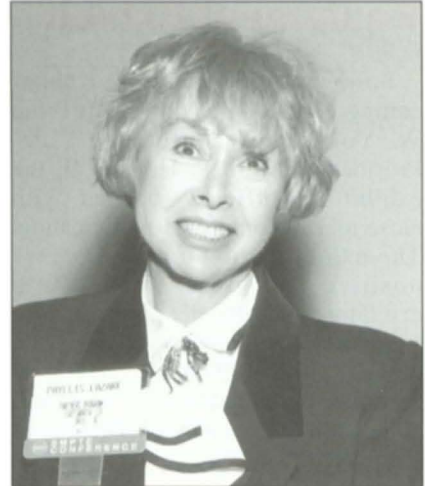
New Fellows of the Society: (seated, L-R) Jean Chatel, Jose Luis Tejerina, Jack Napor, Randall Hoffner, Paul Berger, Keiichi Kubota, and William Hargreaves; (standing, L-R) John Gates, D. B. Nihalsingha, Ed Zwaneveld, John Carlson, Past-President Blaine Baker, President Irwin Young, Ronald Jarvis, and Jukka Hamalainen.

Partners Program

The Partners Program, led by Chairwoman Phyllis La Zare, began with a Welcoming Tea at the Westin Bonaventure, the SMPTE Headquarters hotel, on Friday afternoon, October 29. In the evening the group attended the SMPTE opening reception at the Gene Autry Western Heritage Museum. Following continental breakfast and registration on Saturday, the program featured astrologer Alice Q. Reichard leading a zodiac question-and-answer session. After attending the Honors and Awards Luncheon, the group boarded coaches for Universal City Walk, one

of the newest attractions in Los Angeles. On Sunday, the itinerary included brunch at ROX in the Beverly Prescott Hotel, followed by either a guided tour of the Museum of Tolerance or a visit to the Ronald Reagan Library. Monday's program featured an all-day tour of Universal Studios. On Tuesday, the group attended a slide show and luncheon aboard the grande dame of the sea, the *Queen Mary*, now docked in San Pedro.

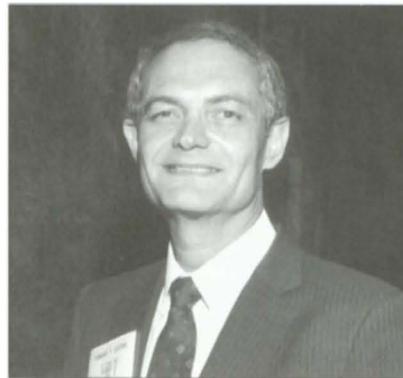
Chairwoman Phyllis La Zare was ably assisted by a committee consisting of Toni Carabello, Judith Chewey, Lucille Dunn, Denyse Haney, Shirley Kreiman, Alice Reichard, Joy Shefter, Judy Stone, Jacquie Stultz, Ida Teitelbaum, and Barbara Wolf.



Partners Program Chairwoman Phyllis La Zare.

Welcoming Reception

A festive Welcoming Reception arranged by Howard La Zare, Film Tec International, got the conference social program off to a great start. All conference attendees were invited to the reception, held at the Gene Autry Western Heritage Museum on Friday, October 29, from 6:00 to 8:30 p.m. The consensus was that this was a very special event, featuring refreshments and music with a Southwestern flavor in an unusual setting that conjured up the Old West.



Hollywood Region Governor Howard La Zare was responsible for arranging the Welcoming Reception.



President Irwin Young addressing guests at the Banquet.

SMPTE Banquet

The annual reception preceding the gala banquet was held Monday

evening, November 1, from 7:00 to 8:00 p.m. in the Sacramento Room of the Westin Bonaventure Hotel. Immediately after the reception, guests moved on to the San

Francisco Room and enjoyed dinner, drinks and entertainment in the San Francisco Room. The banquet provided a fitting ending to the conference social events program.



General Arrangements Co-Chairman Milt Shefter presented a bouquet of flowers to Executive Director Lynne Robinson at the Banquet.



Partners Program Chairwoman Phyllis La Zare was also presented with a bouquet of flowers at the Banquet. Program Chairman John Brooks (L) and Howard La Zare (R).

Equipment Exhibit

Following the traditional ribbon-cutting ceremony by President Irwin W. Young and Conference Vice-President Edward P. Hobson II, the exhibit was officially opened, with close to 180 companies participating. The exhibit, which elicited a very positive response from both exhibitors and attendees, attracted an enthusiastic audience. Products were on view from 10:00 a.m. to 6:00 p.m. Saturday through Monday, and from 10:00 a.m. to 2:00 p.m. on Tuesday in Yorty Hall.

List of Exhibitors



Part of the floor at the equipment exhibit.

- | | | |
|--------------------------------------|--|---------------------------------------|
| ADC Telecommunications | Delsynchro Inc. | Image Design Film Tech Inc. |
| AMI Publishing | Dempa Publications Inc. | Imagica Corp. |
| ASC Audio Video Corp. | Digital Micronics, Inc. | J&R Film Co. Inc. |
| Advanced Audio Visual Systems | Digital Vision DV Sweden AB | JBL |
| Afterglow Inc. | Dolby Laboratories | Jensen Transformers Inc. |
| Alesis Corp. | Doremi Labs Inc. | KEM New York Inc. |
| Alias | Dorough Electronics | KUB Systems |
| The Allen Products Co. | Dynair Electronics Inc. | Knowledge Industry Publications, Inc. |
| Ametron — American Electric Supply | Dynatech Video Group | Leader Instruments Corp. |
| Amphibico Inc. | Eastman Kodak Co. | Leitch Inc. |
| Anthro Corp. | Echolab Inc. | Light Wave Systems |
| Anton Bauer, Inc. | Edit Point | Lighttech Group Inc. |
| Asaca/Shibasoku Corp. of America | Editing Machines Corp. | Lightworks/USA |
| Audio Accessories | Electrosonic Leisure Systems | Los Angeles Cellular Telephone Co. |
| Audio Intervisual Design | Encyclopaedia Britannica North America | MC Sales Inc. |
| Audio Services Corp. | Entertainment Digital Network | MDG Fog/Smoke Generators |
| BGW Systems Inc. | Evertz Microsystems Ld. | Mag-Zon Inc. |
| BHP, Inc. | Focal Press | Magnasonic Corp. |
| Backstage Equipment Inc. | For•A Corp. of America | Management Graphics |
| Belden Wire & Cable | Frezzolini Electronics Inc. | Merlin Engineering Works, Inc. |
| Bittree Inc. | Fries Engineering, Inc. | MicroNet Technology, Inc. |
| Broadcast Store Inc. | Fujinon Inc. | Microtime Inc. |
| Canare Cable Inc. | Gennum Corp. | Miranda Technologies Inc. |
| Canon USA Inc. | Gepco International Inc. | Mole-Richardson Co. |
| Century Precision Optics | Grass Valley Group | Montage Group Ltd. |
| Christy's Editorial Film Supply Inc. | HDTV Newsletter/Advanced TV Pub. | NAB |
| Cinema Products Corp. | Harris Allied Broadcast Div. | NVision Inc. |
| Cinetrim Inc. | Hewlett-Packard Co., VID Div. | Nady Systems Inc. |
| Clear-Com | Hitachi Denshi America Ltd. | Network Connection |
| CoSA | Hollywood Film Co. | New Century Electronics Inc. |
| Compression Labs Inc. | Horita | Night Technologies International Inc. |
| Cue Tech Teleprompting | Hotronic Inc. | Nikon Inc. |
| Cyphertech Systems Inc. | Ikegami Electronics | O'Connor Engineering Labs |
| D and S Corley Ltd. t/a DSC Labs | | Odetics Broadcast |
| Dan Dugan Sound Design | | |



Traffic was brisk at the exhibit.

OmniMusic
 On Production Magazine
 Opamp Labs Inc.
 Optical Disc Corp.
 Optical Laser
 PSN Publications
 Pacific Radio Electronics
 Panasonic Broadcast & Television
 Systems Co.
 Pesa Chyron Group
 Phi Enterprises Inc.
 Phillips Business Information
 Pinnacle Systems Inc.
 Plastic Reel Corp. of America
 Pride Integrated Video Systems
 Pro-Bel Inc.
 Quantel
 Quebec Government Office
 RF Industries Ltd.
 RFX
 RTI Lipsner-Smith
 Radio Frequency Co. Inc.
 Rank Cintel Inc.
 Raytheon Semiconductor
 Recognition Concepts Inc.
 The Rip-Tie Co.
 Royal Television Society
 S.M. Technologies Inc.
 Sachtler Corp. of America
 Sanders Media Adventures
 Schemall By Vizual, Inc.
 Siemens Audio Inc.
 Sigma Electronics Inc.
 Skotel Corp.
 Snell & Wilcox Inc.

Soft Image
 Solid State Logic
 Soundcraft
 Spectral Synthesis, Inc.
 Sprocket Digital
 Steenbeck Inc.
 Stereographics
 Studer Revox America Inc.
 Sundance Technology Corp.
 Super 8 Sound
 Switchcraft Inc.
 Syncom
 Synergistic Technologies Inc.
 TFT Inc.
 TMM
 TSM
 TV Technology
 Technical Aesthetics Operations Inc.
 Technical Film Systems Inc.
 Tektronix Inc.
 Telecast Fiber Systems Inc.
 Telescript Inc.
 Telex Communications Inc.
 Trompeter Electronics Inc.
 Ultimatte Corp.
 Video Design Pro
 Video Intl. Development Corp.
 Videomagnetism Inc.
 Videomedia
 Videssence Inc.
 Vistek Electronics Ltd.
 Wheatstone Corp.
 Wireworks Corp.
 Wohler Technologies
 Zaxcom Inc.

ACVL

The Association of Cinema and Video Laboratories (ACVL) held its 1993 business and technical conference on Thursday, October 28, 1993, at the Westin Bonaventure Hotel in Los Angeles. The meetings were held in conjunction with the SMPTE Conference and included a cocktail reception and luncheon.

A technical program, beginning at 9:30 a.m. featured seven papers by well-known industry leaders. Presentations included papers on various factors relating to preservation, risk management in the format-selection process, a major studio's perspective on the preservation of optical assets, videotape preservation, design of the Kodak Hollywood preservation facility, applications of photo-mechanical and digital techniques in motion-picture restoration, and an environmentally safe motion-picture film cleaner.

The slate of officers elected last year will remain for the 1994 term, as follows: President, James A. Merkle, Allied Film & Video; First Vice-President Frank Ricotta, Technicolor, Inc.; Second Vice-President, Gail Ringer, Ringer Video Services, Inc.; Treasurer, Rich Vedvick, Forde Motion Picture Lab; and Secretary, George Hutchison, Consolidated Film Industries.

New directors for the 1994 term include Robert Smith, Du Art Film Laboratories; Robert G. Redd, Ultracolor Laboratories; and Ray Balousek, Producers Color Service.

The ACVL, founded in 1953, provides its members with the opportunity to discuss and exchange ideas relating to the technical, administrative, and managerial problems, as well as the opportunities present, in the operation of a film and video laboratory. It is concerned with all areas of interest to the motion-picture and video laboratory industry.

The largest association devoted exclusively to these highly specialized fields, the ACVL membership consists of most of the professional motion-picture and video post-production laboratories in North America, in addition to those in other parts of the world.

— Joyce R. Hurwitz