

134th SMPTE Technical Conference and Equipment Exhibit Metro Toronto Convention Centre, Canada

November 10 - 13, 1992

The 134th SMPTE Technical Conference and Equipment Exhibit, "Images in Motion — The Second Century," was a resounding success. The four-day event, held Nov. 10 to 13, 1992, attracted over 11,000 registrants. According to reports from attendees and exhibiting companies alike, the conference offered a well-rounded technical program, complemented by an impressive equipment exhibit.

June Rowlands, Mayor of Toronto, proclaimed the dates of Nov. 9 to 14 as SMPTE Week, and during a special ceremony held on Monday, Nov. 9, the proclamation was officially presented to the SMPTE by members of Toronto's Council. A specially prepared SMPTE flag was flown in front of Toronto's City Hall for the duration of the conference.

On Monday evening, members of the SMPTE Executive Committee, Board of Governors, Local Arrangements Committee, and headquarters staff attended a special reception in their honor at the suite of The Honorable Henry N. R. Jackman, Lieutenant Governor of Ontario, in the Parliament Building.

All-Day Tutorials

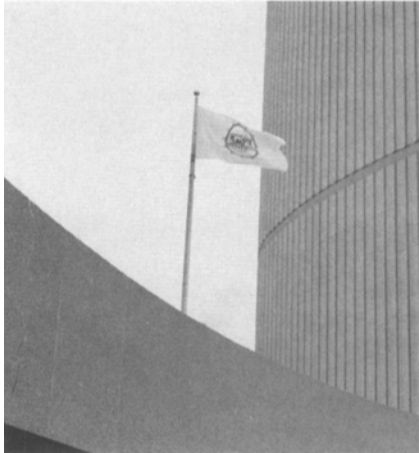
As a prelude to the conference, two concurrent all-day tutorials, "The Post Experience" and "Multimedia World," were offered on Nov. 9.



Toronto Council Members Naish McKew (left) and Dennis Flynn (right) presenting SMPTE President Blaine Baker with a special proclamation from the Mayor of Toronto, which designated Nov. 9 to 14 as SMPTE Week.



A special reception honoring the SMPTE took place at the Parliament Building suite of The Honorable Henry N. R. Jackman, Lieutenant Governor of Toronto. Here, on the receiving line, Mr. and Mrs. Bob Smith are greeted by Fung Lam (left) and Jackman (center).



A specially prepared SMPTE flag was flown in front of Toronto's City Hall.



A technical session took place at Skydome, the site of the largest television screen in North America.

The Post Experience

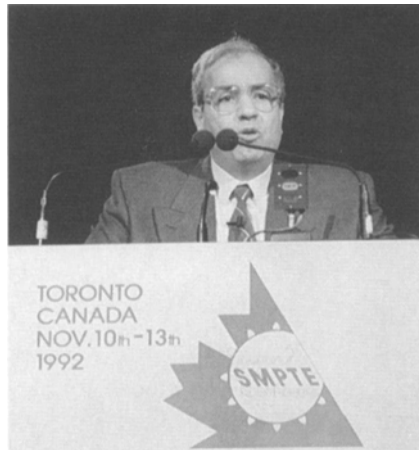
The Post Experience, an overview of modern motion-picture and television post-production, met with rave reviews.

"The tutorial was a good crash course given by people who learned in the trenches," said John Brewer, Eastman Kodak Co. "The session provided an excellent opportunity to learn what the new post-production technologies are all about. This isn't the type of information you can get by reading."

Paul Kosinski, IBM Research, agreed. "I've learned some things here. The afternoon portion, which focused on audio, was something particularly helpful to me."

During the tutorial, registrants learned about sound editing, Foley artistry, automated dialogue replacement (ADR), off- and on-line editing, special effects, and distribution. Topics covered included how each layer of sound effects and ADR is added to a motion-picture or video scene, the different uses of off- and on-line editing, how to mix the high-resolution medium of film origination with video technology to create motion-picture and television special effects, and low-cost sound techniques used in multimillion dollar movies.

"The Post Experience was aimed at people who want to know more about post-production," said Harvey Rogers, YTV, organizer of the tutorial. "As post-production technology becomes more sophisticated, this seminar provided a rare overview of the current technology and methods used by the post-production community."



Shaker Sabri addressing attendees during Multimedia World, an all-day tutorial that preceded the conference.

The educational content of The Post Experience was presented in a multimedia format. Registrants were guided through the post-production process by Mr. Q, an electronically animated, wisecracking host, who introduced each segment. The audience was taken directly into an editing suite — via a 10-ft video screen — where they participated in the editing of a scene from YTV's "Maniac Mansion." Emphasis throughout the day was placed on audience participation. They selected shots from the dailies of "Maniac Mansion" to create a finished scene using off-line editing and sound post-production techniques; the voices of volunteers were used in the ADR process.

During the tutorial, attendees saw firsthand how electronic video technology enhances the capabilities of motion-picture film in a documentary entitled *The Making of the Kodak Olympic Commercial*. The film,

which was put together by Eastman Kodak Co., gave a behind-the-scenes look at the production of the company's commercial, which was created specifically to be aired during the Summer Olympics in Barcelona.

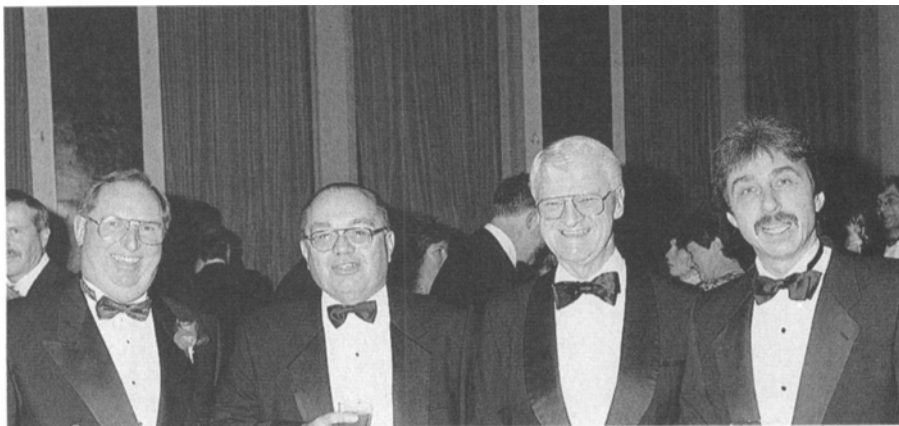
Speakers during the day included Michael Beard, WMB Productions; Andy Malcolm, Film House; John Gajdecki, Visual Effects; Ellen Heine, AdCom/Epix; Mark Wright, Masters Workshop; David Greene, Magnetic Music; Jeff DeWolde, International Image; and Bob Predovich, Masters Workshop. Anne Medina, Canadian Academy of Motion Arts, and Ismé Bennie, Paragon International, were the guest speakers.

Throughout the day, there were contests and giveaways, including a grand prize for the attendee who wore the most broadcast and film industry logos.

Multimedia World

Multimedia World provided both theoretical and hands-on coverage of multimedia tools and applications; discussion was devoted to display, processing, control, and communications. Information on computer platforms — PCs, Macintoshes, and workstations — was presented, and forecasts of the technology's future were offered.

"Film, broadcasting, and computer professionals have all been integrating bits and pieces of various media into their work, but recently there has been a rapid explosion in electronic multimedia and it has become very affordable," said Multimedia World Program Chairman Shaker Sabri, Bell Northern Research. "We have to start



From left: Topic Chairman David George, Program Vice-Chairman John Baptista, Topic Chairman Fin Quinn, and Program Chairman Colin Davis.

looking at multimedia as having potential to dictate the way we will conduct our day-to-day business.”

The tutorial included a summary of the many multimedia standards that exist and are under development, including SMPTE, ISO, and CCITT standards. In addition, the session addressed the topics of multimedia production, covering the process of creating electronic multimedia productions and demonstrating techniques for bringing together sound, full-motion video, stills, graphics, and text; teletraining and distance education, focusing on interactive, easily accessible educational materials; productivity and groupware, highlighting working group and networking arrangements; and multimedia applications, covering the process of communicating and conveying information interactively. Presenters at the tutorial included Sabri; Leonid Strashun, Sony Broadcast and Communications; John Robinson, University of Waterloo; Phil Smith, IIS Technologies; and Karen Mills, White Light Video.

Technical Program

The technical program was divided into three main areas: television, film, and multimedia. During the four-day conference over 115 papers, exploring innovations in motion imaging and examining advances and directions in established motion-picture and television technologies, were presented.

“This SMPTE gathering was particularly significant for both its degree of specialization and its degree of integration,” said Program Chairman Colin Davis, Kodak Canada Inc. “Not only did we explore the depths of

media and applications development, but we looked at media integration and how they are converging in so many areas.”

The conference offered morning and afternoon sessions, covering a wide array of topics. There were 16 technical sessions, including Compressed Video Imaging, Film Post-Production and Projection Technologies, Design/Development of CBC’s New Toronto Broadcast Centre, Video Crossroads, Laboratory Technology/Preservation and the Environment, Large-Format Film Technology, Television Digital Systems (Parts 1 and 2), Film Production and Sound Technologies, Production Technology Application, Advanced Television Systems, and Television Recording Technology.

The overall quality of the technical program was given high ratings by attendees. Peter Symes, Grass Valley Group, who served as chairman of the Television Digital Systems: Part 1, was particularly pleased. “It was a pleasure to chair this session,” he said. “All of the papers were informative and professional.”

According to AV Chairman Ed

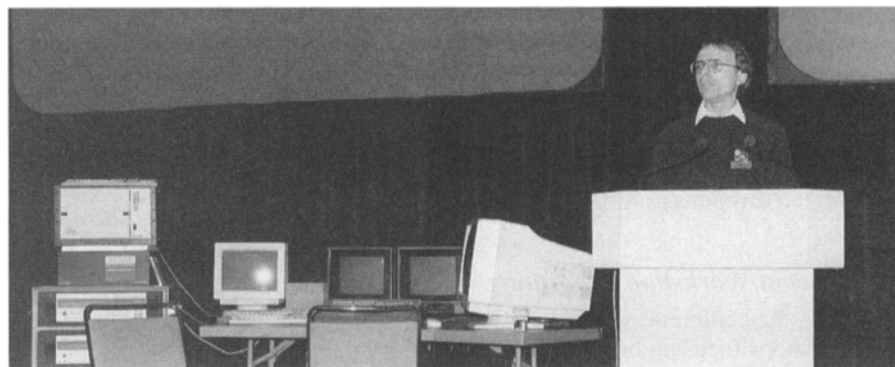
Holmes, Global Television Network, new techniques were used this year to spice up the traditional presentations. “We treated this event more like a theatrical production than a boardroom meeting,” he said. “We built sets and walls to make it visually friendly and used image magnification during the presentation so that the entire audience got a clear view of the speaker. We were prepared to integrate high-definition tape, computers, and any analog format into the speakers’ audio-visual needs. We even used different kinds of lighting techniques during the presentations, including mood and spot lighting.”

Special Sessions/Tours

Three technical sessions took place outside of the Convention Centre. On Wednesday, Nov. 11, presentations were made at Skydome, where registrants observed the largest television screen in North America, and Cinesphere - Ontario Place, where an estimated 600 attendees viewed the world’s largest film format. On Thursday, the “Film Production and Sound Technologies” session was held at Film House, one of North America’s largest post-production facilities for motion pictures and episodic television.

“These sessions took attendees away from the large-room feel, and aired out the proceedings by interspersing physical application with the traditional theoretical and analytical program,” Davis said.

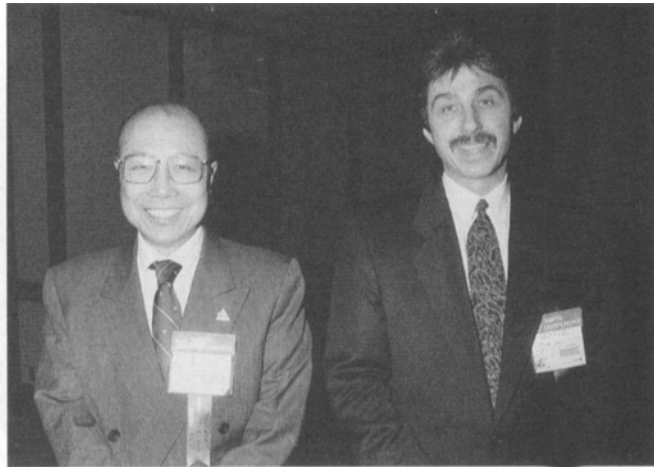
On Thursday, the multimedia portion of the program featured a special session, entitled “Beyond the Desktop,” which included a selection of multimedia-related paper presentations and interactive events that required some audience participation. The session was held in conjunction



Over 115 presentations took place during the four-day conference.



Outgoing Editorial Vice-President Frank Haney posing with incoming Editorial Vice-President David George.



General Arrangements Chairman Fung Lam (left) with Program Chairman Colin Davis.

with the Toronto section of the Association of Computing Machinery/Special Interest in Graphics (ACM/SIGGRAPH).

Also on Thursday, the television portion of the program featured "Digital Television Day." Throughout the day, sessions were devoted to issues relating to digital television technologies. On Friday morning, the Film Session offered a panel discussion on the topic of "Electronic Post-Production and Visual Effects." Leading-edge professionals played a significant role in this event.

CBC Tours

Throughout the conference there were daily tours of CBC's new broadcast center. The tours, which offered admission by reservation and had a limited availability to 600 delegates, was booked to capacity on Thursday morning.

During the tour, attendees saw a video presentation and visited the rooftop television studios and control rooms, master control room, and the Glenn Gould Studio. A 15-min video showed registrants the unique features of the building and the technology used in the radio and television facilities.

As an added offering, Sony of Canada Ltd., provided a Sony television receiver as a grand prize for a drawing offered to participants in the CBC tour. Gunnar Gronlund, Norwegian Broadcasting Corp., was the winner.

Multimedia Workshop Program

During the conference, three hands-on workshops focusing on multimedia were offered. The sessions, which fea-

tured demonstrations and close interaction with media integration technology, were a rousing success; the sessions were oversubscribed due to late registrations, and additional room had to be made to accommodate the overwhelming attendance. The workshops offered were Multimedia Production, Multimedia Training and Education Applications, and Multimedia Communications.

Based on on-site interviews conducted during the Multimedia Production workshop, the session quenched a thirst for information on what's taking place in the multimedia arena.

According to Fred Winegust, IBM Canada, the session covered all the basics. "There were good theories presented, which let me in on all the buzzwords, making it helpful to me in interacting with clients. The workshop exposed me to a lot of things that run on an IBM platform, as well as other

platforms, and let me see where the opportunities are going to be."

Jerry Riegler, Avda Corp., added that the workshop session were definitely a benefit. "I got exposure to a variety of systems, all in one setting. I plan to attend other workshops while I'm here."

Harry R. Ritchie, State University of New York, said "The workshop was very useful in helping me stay current. In academia it is difficult to keep up with all the new technology, and sessions like this are important in helping me know what is happening."

Panel Discussion

In addition to the traditional papers presentations and product displays, the conference offered a two-part panel discussion open to all attendees, "Effects of Digital Video on Future Broadcasting," which was held from 12:30 to 1:30 p.m. on Wednesday, Nov. 11, and Thursday, Nov. 12. The

Conference Committees — Program

Editorial Vice-President

Frank J. Haney, *Fox Television Stations*

Program Chairman

Colin F. J. Davis, *Kodak Canada, Inc.*

Program Vice-Chairman, Motion Pictures

John L. Baptista, *Consolidated Film Industries*

Program Vice-Chairman, Television

Peter Smith, *NBC*

Topic Chairman, Motion Pictures
Fin Quinn (ret.)

Topic Chairman, Television
David L. George, *Imagineering Ltd.*

Post-Production Tutorial
Chairman
Harvey Rogers, *YTV Canada Inc.*

Multimedia World Tutorial
Chairman
Shaker Sabri, *Bell Northern Research*



Assembled members of the Local Arrangements Committee.

panel discussion, which was offered free of charge, was sponsored by Phillips Publishing Co.

Equipment Exhibit

The equipment exhibit featured 185 exhibitors from North America and abroad, who displayed the industry's newest products and latest innovations.

This year the equipment exhibit included several new offerings,

including Bonus Certificate Booklets, which offered registrants discounts on specific manufacturers' equipment, and Publication Bins, an area where many publishers circulated their literature.

According to interviews conducted on the exhibit floor, the SMPTE exhibit was attended by a well-qualified buying audience.

"We were very, very pleased by both the quantity and quality of the

people who attended the SMPTE Equipment Exhibit," said Patrick Whittingham, Sony of Canada Ltd. "We took a new tack this year and offered two technological presentations, right from our booth. One presentation was on digital bit-rate reduction and the other was on 525 widescreen; we had seating capacity for about 20 people, and by the end of the show approximately 250 people had seen the presentations.

Conference Committees — General Arrangements

Conference Vice-President

L. John Spring, *Allied Film and Video Services*

General Arrangements Chairman

Fung F. Lam, *Sony of Canada Ltd.*

Assistant General Arrangements Chairman

Fred Lemmin, *Northtron Corp.*

Facilities Security Chairman

Peter Bartlett, *Applied Electronics Ltd.*

A/V Projection/PA/Recording Chairman

Edward Holmes, *Global Television Network*

Banquet Chairman

Howard Wilkinson, *CBC Broadcast Centre Project*

Display Chairman

Donald John, *3M Canada, Inc.*

Partners Program Chairwomen

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Hospitality and Information Chairman

Walter Zessner, *George Brown University*

Honors and Awards Luncheon Chairman

Peter Laidlaw, *Imagineering, Ltd.*

Fellows Luncheon Chairman

Walter J. Bebenek, *Ampex Canada*

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René Villeneuve, *National Film Board of Canada*

Opening Films/Tapes Chairman

Grant Dearnaley, *National Film Board of Canada*

Conference Advisor/Publicity Chairman

Maurice French, *CBC (ret.)*

Publicity Associate Chairman

Douglas S. Wilkinson, *CBC*

Registration Chairman

Stephen Pumple, *Immad Broadcast Services*

Transportation Chairman

Harry Linton, *Imagineering, Ltd.*

Message Center Chairman

Michael Smith, *Film Opticals of Canada, Ltd.*

Assistant Auditor

Edie Ballantyne

Hotel Chairmen

Fung F. Lam, *Sony of Canada*, and Fred Lemmin, *Northtron Corp.*

Sponsorship Chairman

Cyril Drabinski, *The Film House*

CBC Tour Chairman

Fred Benedikt, *CBC*



The Post-Production Experience preceded the conference on Nov. 9.

"The reaction of our customer base was very, very strong," he added. "The topics presented were very current, as the industry becomes more interested in cost-effective methods towards advanced television. I expect that Sony will exhibit at next year's SMPTE exhibition in Los Angeles."

John L. Minck of Hewlett-Packard, a first-time SMPTE exhibitor, said "We are displaying traditional test equipment and wanted to see station technicians and broadcast engineers. We hit that here. The people that attend this exhibit are important, and we plan to exhibit at the SMPTE show next year in Los Angeles."

Tom Moore of Panasonic noted that the people that came into his booth were the people he wanted to see. "We find that the vice-presidents and executive-level people attend the SMPTE show. We saw fewer tire kickers and more influential people. We had lots of activity from key broadcasters and users, particularly from the Canadian area."

Dale Rochan of Chromatek was pleased that he exhibited at the SMPTE show. "We are a medium-size company and this show helped get us time with very key people. It is very nice to see the quality of audience here, with its level of expertise. We are getting a chance to show off our products to top people in the industry."

New Technology Room

The highly successful New Technology Room was again featured at this year's exhibit. A number of companies took advantage of this facility, which offered exhibitors a special location to introduce their

wares and services to the press and other interested parties. Participants included Magna-Tech Electronic Co., NVision, Telemetry Inc., FOR•A Corp. of America, Panasonic Corp., Quantel, Jastram, Filmtechnik, and Multidyne Electronics Inc.

Creativity Clinics

Creativity Clinics were a new feature at the SMPTE Equipment Exhibit. During these sessions, well-known industry experts offered demonstrations on the creative aspects of motion-picture and television production. Creative lighting techniques, power grounding, and pyrotechnics were among the sessions offered.

Surveys filled out by registrants indicate that the clinics were well received. Due to the recommendations made by those surveyed, the SMPTE is looking into expanding these sessions at future shows.

HDTV Demonstrations

Throughout the conference there were all-day HDTV demonstrations. Vision 1250 — a group of European broadcasters, manufacturers, independent video and film producers, and transmission authorities who are committed to the production of HDTV programs — showed the results of film-to-tape transfers and tape-to-film transfers and the latest HDTV productions NHK and The 1125/60 Group also presented demonstrations.

Consultants Center

A new feature at this year's exhibit was a special area that was housed by two of the industry's leading consulting firms — David R. Horowitz Co.

and Glenwood Systems. Through this service, attendees were able to obtain information on products and services and seek advice and solutions regarding technical difficulties.

Reports indicate that both the attendees and consultants benefited from this valuable offering, and plans are under way to expand the Consultants Center for the 135th SMPTE Technical Conference and Equipment Exhibit, which will take place Oct. 30 to Nov. 2, 1993, at the Los Angeles Convention Center.

Opening Session

A special feature at the conference was the Opening Session, which included an address by SMPTE President Blaine Baker, comments from Program Chairman Colin Davis, an Engineering Report from SMPTE Engineering Vice-President Ken Davies, and remarks from William Stackhouse, chairman of the Task Force on Digital Image Architecture.

The keynote address was presented by Patrick Watson, chairman of the board of CBC and a noted Canadian television journalist, filmmaker, and writer. During his speech, "The Death Stars are a Godsend," he reflected that the "contemplation of a jillion-channel universe has enormous beneficial effect on broadcasting policies."

Watson discussed CBC's strong tradition of documentaries and "home-grown drama," noting that there has not been sufficient distinction in the mind of the Canadian audience between the corporation's and private broadcasters' programming. He discussed programming, how to get funding by ensuring that programs are pertinent, and stressed the importance of CBC's accountability to the public and the development of alliances with the private sector to provide a service to its audience.

Social Events/Special Events

Opening Reception

All attendees and exhibitors were invited to the Opening Reception, which was held Tuesday at L'Hotel, from 6 to 8 p.m. The function, which featured music and refreshments, was attended by members of the Royal Canadian Mounted Police, who made themselves available for photo opportunities.

Honors and Awards Luncheon

The Honors and Awards Luncheon, held Tuesday afternoon at the Convention Centre, featured guest speaker Dave Broadfoot, a well-known Canadian humorist.

Prior to the luncheon, members of the head table and award recipients were led in by a procession of bagpipers, who were followed by a contingent of the Toronto Metropolitan Police carrying the U.S. and Canadian flags and the flags of the Canadian provinces. During the luncheon, awards, certificates, and plaques were presented to 20 recipients.

Fellows Luncheon

The Fellows Luncheon took place Wednesday, Nov. 11, at L'Hotel. SMPTE Past-President Maurice French delivered the Fellows Luncheon address. During the luncheon ceremonies, 15 SMPTE members were elevated to Fellow status.

Annual Banquet

The Annual Banquet took place Thursday, Nov. 12, at the Royal York

Hotel. Following a reception in the Ballroom, the banquet was held in the Concert Hall, specially transformed for the occasion. Dancing to the big-band sound of the internationally famous Spitfire Band was featured, as well as a performance by Showtime, a 24-member chorus of singers and performers.

Partners Program

The Partners Program attracted an overwhelming 90 registrants. The program began with a Welcoming Tea on Monday, Nov. 9, and continued with interesting daily activities. On Tuesday, participants toured the recently refurbished Elgin and Winter Garden Theatres before joining other conference attendees at the Honors and Awards Luncheon. Wednesday, offered partners the opportunity to visit Niagara Falls and the picturesque town of Niagara-On-The-Lake. Lunch was served at historic Queenston Heights, on the Niagara escarpment. On Thursday, a drive through the city of Toronto introduced participants to the unique makeup of the city. Lunch was served at the elegant Vaughan Estate on the Don River.

Sponsored Activities

The SMPTE would like to thank Sponsorship Chairman Cyril Drabinsky and the following sponsors for their very generous support: Adcom Electronics, Agfa Canada Inc., Allied Film and Video Labs Inc., Ampex Canada, Applied Electronics Ltd., CBC, Command Post and Transfer, Consolidated Film Labs, Degenkolb Engineering, Dolby Corp., DuArt Film and Video, Eastman Kodak Co., Film House, FilmLab Engineering Pty. Ltd., Film Line Technologies, Fuji Photo Film Canada Inc., Imax Corp., Kodak Canada Inc., Medallion PFA Film and Video Lab Inc., Municipality of Metro Toronto, National Film Board of Canada, National Film Services, NBC, NHK Corp., Ontario Film Development Corp., Panasonic Broadcast and Television Systems Co., Phillips Business Information Inc., Rank Film Lab Groups, Sony Corp. of America, Sony Corp. of Canada, Spot Film and Video Inc., The 1125/60 Group, 3M Corp., Universal City Studios, Vision 1250 Group, and Wallace Avenue Studios.

— Carol King

Opening Remarks from the Program Chairman

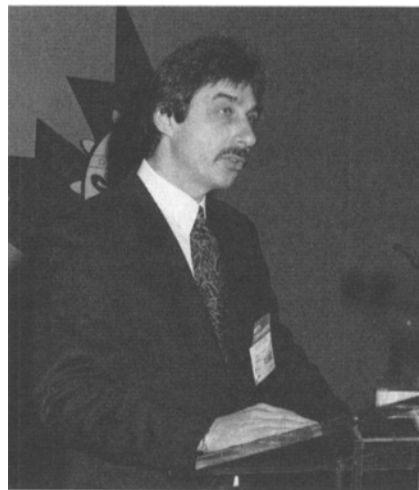
By Colin Davis

Bonjour, je suis Colin Davis. Good morning, I am Colin Davis, your Program Chairman. Welcome to the 134th SMPTE Technical Conference and Equipment Exhibit.

It has been some 18 years since this conference was last held in Toronto, and it is a very great pleasure to welcome you back to the home of the 1992 World Series baseball champions!

The program challenge for the committees was to explore innovation in imaging and examine advances and directions in established technologies. From this technical and strategic objective, the theme "Images in Motion — the Second Century" was established.

The goal this year was to develop a program that contained approximately 100 high-quality technical papers. The papers would embody two primary topics: first motion pictures, to include the film/television interface and second, television and its associated technologies, including new technologies



Program Chairman Colin Davis.

currently viewed on the horizon.

The committees attempted to organize the program, to put the subjects you were interested in together. We then tried to determine current and topical subjects in the industry and to

seek out those qualified to speak on these subjects. Next we placed a Call for Papers, asking for submissions based upon the developed outline.

This year we received over 145 submissions from countries such as the United States, Canada, Germany, Denmark, England, Belgium, France, The Netherlands, and Japan. After a very careful selection process, the committees selected approximately 116 high-quality technical papers. There are 16 technical sessions, which encompass motion pictures, television, and a new technology — a first for this conference — multimedia.

I would like to take a moment and recognize the Chairs and their respective committees involved in the program development. Our thanks to the Program Vice-Chairman for Motion Pictures, John Baptista, and to the Program Vice-Chairman for Television, Peter Smith. Your contribution and experience have proved to

be invaluable and have been a key element in the design of this program.

Two other major contributors to be recognized in the program. First my colleague Fin Quinn, Topic Chairman for Motion Pictures, and his committee members, including Wilson Markle, Diane Cappelletto, David Cheng, and Steve Mayhew. My other colleague to be recognized is David George, Topic Chairman for Television and Multimedia Technologies. His committee members include Lou Montana and Jim Morrison.

There are six technical sessions comprised of 41 papers associated with the motion-picture technologies. Here we examined advanced motion-imaging technology, encompassing both the aural and visual experiences. New directions and progressive updates will be heard in each of the sessions, be it either production, post-production, projection, sound, large-format film technologies, or in the visual-effects domain.

The Electronic Post-Production and Visual Effects session will be represented by a panel of experts who will explore the cutting edge, and share their innovative ideas that link motion-picture and computer technologies. With the topic of television there are eight technical sessions comprised of 59 papers. Here important issues are presented that include the advances in digital television and advanced television systems and recording technologies. Compressed video imaging and the convergence and transition within video technology are also explored.

One session will be entirely devoted to an overview of the Canadian Broadcasting Corporation's new Toronto Broadcast Centre. This state-of-the-art broadcast facility provides us with technical insights, beginning with the concept, through design stages, to the final form. Ongoing tours of the CBC's Broadcast Centre will be provided throughout this conference.

This year, we are pleased to include multimedia technologies in the conference program. There are two sessions offering 16 papers on the subject. On the Desktop will explore new and innovative presentation techniques using computer technologies, while Beyond the Desktop will be an interactive session and will be held in conjunction with the Toronto Section of the Association of Computing



Keynote Speaker Patrick Watson.



Dr. William Stackhouse making a brief presentation during the Opening Ceremonies.



From left: Transportation Chairman Harry Linton, General Arrangements Chairman Fung Lam, Fellows Luncheon Chairman Walter J. Bebenek, and Honors and Awards Luncheon Chairman Peter Laidlaw.

Machinery/Special Interest in Graphics, also referred to as ACM/SIGGRAPH.

This year, three of the technical sessions will be conducted at different venues, to ensure that the audio-visual experience is optimized: a tour of the Skydome and an opportunity to observe the world's largest indoor television screen; to Cinesphere at Ontario Place to view the large-format film technology; and to Film House Post Production Facilities, where picture and sound demonstrations will be seen and heard in a theatrical environment.

Preceding this conference, two all-day tutorials were conducted — The Post Experience and Multimedia World. The Post Experience, chaired by Harvey Rogers, provided the attendees with an overview of the technical processes associated with the production, post-production, and distribution stages of a given project. Concurrent with this tutorial, Multimedia World, chaired by Dr. Shaker Sabri, provided an overview of the theory and practical coverage of multimedia tools and

applications. Discussions were devoted to display, processing, control, and communications.

Concurrent with this papers program, daily hands-on Multimedia Workshops will be offered. The sessions include Multimedia Production, Training and Education Applications, Communications, and Information Access.

The equipment exhibit features displays by 178 companies from North America and abroad. The show floor is the place to see the newest products and latest innovations. There will also be all-day HDTV demonstrations throughout the conference. You will have an opportunity to view demonstrations presented by both Vision 1250, NHK, and the 1125/60 Group.

In addition to the traditional papers presentations, the conference will offer a two-part panel discussion, open to all attendees, entitled "Survival Guide to Digital Broadcasting."

A feature new to this year's conference is the Creativity Clinics. Here industry experts will offer demonstrations on

the creative aspects of both motion-picture and television production. Topics to be explored include creative lighting techniques, underwater motion imaging, audio effects, and aerial filming.

I would also like to bring to your attention the following activities. Tonight, at L'Hotel, the Welcome Reception will begin at 6:00 p.m. On Wednesday evening, a reception will be held at Pod One in the Cinesphere from 6:30 to 8:00 p.m. And on Thursday evening, beginning at 7:00

p.m., the Reception and Banquet will be held at the Royal York Hotel.

Before I turn the proceedings over, there are a few people I would like to recognize: my thanks to SMPTE Editorial Vice-President Frank Haney, SMPTE Program Coordinator Marilyn Waldman, and my Administrative Assistant Lynda Allan, for their invaluable contribution and support.

At this time, it is now my great pleasure to introduce the President of the Society, a man who is just completing a

two-year term of office, which has virtually taken him around the world. He has served the SMPTE as both Financial Vice-President and a member of the Board of Governors for 12 years. He is also a former president of the Association of Cinema and Video Laboratories and a charter member of the Tennessee Film and Tape Commission. In real life he is president of MPL Film & Video in Memphis and Nashville. Ladies and gentlemen, the President of SMPTE, Blaine Baker.

Opening Address

By Blaine Baker, SMPTE President

Good morning. On behalf of the officers and the board of governors, I welcome you to the 134th Technical Conference of the Society of Motion Picture and Television Engineers. We're delighted to be in Toronto. It's obvious already that your Local Arrangements Committee, chaired by Fung Lam, has been at work for many months to cover the hundreds of details that are so important for a smooth-running conference. We look forward to a comprehensive program, chaired by Colin Davis.

The year 1992 has been an exciting and busy one for the SMPTE. We began the year in San Francisco with our renamed Advanced Television and Electronic Imaging Conference, and judging from the response of the members and the trade press, it was correctly titled. We benefited from two days of papers devoted to computer-generated imaging, plus an extra day of tutorials that enhanced our knowledge of system integration. That interchange of knowledge continues into this conference in Toronto, and into the future. Our Technology Committees have already begun work on standards that will be important to the digital imaging world.

In the spring, we were represented at the European Broadcast Union (EBU) Conference in Italy by our Engineering Vice-President Ken Davies and our recently elected 1993 Executive Vice-President Stan Baron.

The SMPTE has a long, successful history with the EBU for generating and sharing standards. In July, I had the honor of representing our



SMPTE President Blaine Baker.

Society, along with Executive Director Lynette Robinson, at the IBC Show in Amsterdam. With the help of International Governors John Barry and Gordon Ballantyne, we hosted a reception for our members. These two governors also joined me in September as we attended the fifth international conference, entitled New Horizons, presented by our two Australian Sections.

The first SMPTE European Conference was also staged in September, during Photokina in Cologne, Germany. Executive Vice-President Irwin Young and Executive Director Lynette Robinson were on hand for this historic event.

And today we open this conference in Toronto, returning to this beautiful country, which has hosted many of our previous conferences.

We are reminded, "The only thing

constant is change." The SMPTE is changing. We are embracing the participation of computer-generated images into our traditional electronic and film engineering operations. Through its engineering committees, the SMPTE already has in place the infrastructure so necessary for standardization efforts.

Our educational programs, such as the tutorial and workshops presented here, have been extremely well received and attended and we plan to continue them.

Change is coming to our scheduling of these fall conferences. The worldwide recession has affected all of us. The halcyon days of living off the exhibitors are over. The manufacturers cannot support the plethora of new trade shows now available. We must be aware of the growing travel expenses of our members and our exhibitors. To that extent, we have adjusted our 1994 venue to coincide with another engineering society that shares considerable membership with us, and we invite other organizations to join us in serving the best interests of our members and the industry.

The SMPTE has a proud history because of its ability and desire to change — from silent films in 1916, to sound, 16mm professional film, color, Super 8mm film, television, widescreen formats, videotape, HDTV, and multimedia.

The only thing constant is change. The SMPTE is helping our world to change, and I thank you for your continued support.

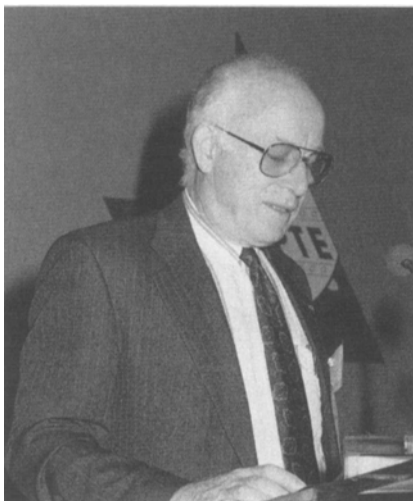
Engineering Report

By **Kenneth P. Davies**, Engineering Vice-President

The year 1992 has been a challenging one for the engineering activities of the SMPTE from several viewpoints, but it is evident that our efforts are meeting the current needs and going beyond them to exert technical leadership in the development of standards and other documents that meet the needs of the expanding constituency embraced by the SMPTE. The way ahead is over an accelerating evolution of technologies and there must be a continuing review of the basis and content of the work to ensure that it maintains the highest levels of quality, professionalism, and relevance in a changing world.

The year started with the reorganization of activities into a new structure and new work, heralding the convergence of motion pictures, television, and computers into a common image-based network. This activity has been receiving much attention, while the work on the basics of television has been moving rapidly ahead to accommodate the needs of fully digital production and post-production. The resources available to the Society have been considerably stretched, and new ways to carry out the work have been introduced to reduce costs to participants and to accelerate the work to maintain its relevance.

We live in an evolving world, and hence the SMPTE must change accordingly. The constituency of the Society is changing rapidly, as is the mix of applications that it must consider. Technology, especially that which is digitally based, has merged film and television production/post-production, and is now bringing together the previously isolated video, computer, and telecommunications industries as a common digital expression for visual communication emerges. The standards that will be established in the SMPTE and related organizations must therefore take account of this new situation, focusing on the future but taking into consideration the present, to the extent possible. The SMPTE is in the forefront of these activities and has become a significant influence in



Engineering Vice-President Kenneth P. Davies.

these developments, providing the essential infrastructure to document the needed concepts and standards to this newly expanded sphere of applications.

The engineering activities of the SMPTE, indeed most of its activities, are increasingly of global application and of international significance. Standards written today by most standards developers must meet the total needs of the global market, as the barriers to trade come down, as electronic imaging becomes the common language, and the schedule for standardization becomes dramatically shorter. These factors, evident today, will need serious consideration in the establishment of the future directions for the SMPTE and its relationship to the global standardization activities.

Production and Post-Production

The SMPTE, through its engineering committees, continues to play a leading role in the development and introduction of digital technology to the production and post-production of both television and motion pictures. In these applications, the availability of fully digital operation is nearly complete and many facilities are moving to make use of the quality and economy inherent therein. Important progress is also apparent in the completion of work concerning the moni-

toring and quality assessment of television pictures and the commencement of similar work concerning TV audio. Surprising, perhaps, is the completion during this year of documents that for the first time define precisely the NTSC system as it exists in the production environment, which will form the foundation of the interfaces between the digital and analog worlds. The SMPTE committees, acting in liaison with EBU, have also documented the parameters for some 625-line, 50-Hz systems. Worldwide, the SMPTE engineering documents are the basis on which both TV and film production exist today.

Broadcasting

The actions of the FCC and the ongoing work in the Advisory Committee have focused considerable attention on future broadcasting systems. The SMPTE has been supporting this work with appropriate standards development activity to facilitate testing and to prepare for the upcoming work. As soon as the Commission renders a decision in this matter, the SMPTE will be working in close coordination with ATSC, EIA, NCTA, and others to develop the related standards necessary for the production and distribution of programming and other software. This activity is expected to occur in the 1993-1994 time frame and already the necessary planning has begun.

Motion Pictures

Developments in this area of the Society's work are following similar trends to those previously noted for television. In fact, the conventional dividing lines are already very blurred with the adoption of digital imaging and digital sound in production, the laboratory, special effects, and distribution to the theater. The skills of the motion-picture community in theatrical optical projection and multitrack, high-quality sound are being harnessed synergistically in television. The techniques of computer imagery are now well entrenched in the special-effects community and new

forms of release such as CDI, Photo-CD, and multimedia are evolving. The skills of television in HDTV are bringing new dimensions to film production. Noteworthy is the development of standards for film images in digital, high-resolution forms, thus enabling the free exchange of images in both film and electronic forms for motion-picture production. In the new engineering structures, a Hybrid Technology Committee has been established to investigate and document the common elements and interfaces at these intersections of previously disparate technologies and is making good progress. The SMPTE — through the Technology Committees concerned with Film, Laboratory Practices, Theatrical Projection, and Audio — is heavily involved in these new developments, which are critical to the future of the entertainment industries.

The Future

The SMPTE has a long history, 76 years to be precise, of distinguished and professional leadership, and it is my expectation that this tradition will be continued and expanded in the coming years. Planning for the future is as much a priority for today as is keeping the current work moving efficiently and to schedule. Much of the change evident in the Society this year has addressed these issues and further change can be contemplated to accommodate the accelerated pace, the merging technologies, the expanded constituency, and the increasingly international outlook.

- Leadership. The SMPTE must ensure that it continues to be at the forefront of developments, performing the necessary studies to keep the engineering work relevant to the needs of the constituency. This activity can be shared with the membership

in tutorials and the *Journal* and requires an open and cooperative relationship with the industries it serves globally. The future can only be seen indistinctly, and hence the results of such work are sometimes imprecise and there are risks involved. The bigger risk to the SMPTE is, however, to become a mere follower, and hence we must move firmly ahead.

- Speed and efficiency. The pace and scope of standards development is ever increasing and the process must evolve also, utilizing the very work in image communications in which we are involved. During 1992, the work of the Society has made use of computer and electronic conferencing, electronic mail, telephone and video conferencing, and of course the traditional meetings, although these have themselves been highly structured to minimize cost to the participants. We are striving for an appropriate mix that will promote efficiency, progress, and the participation of a wide spectrum of affected interests, a growing community. Consideration of an SMPTE conferencing and document distribution network is at an advanced stage.

- Community of interest. Traditionally, the SMPTE has drawn upon the resources of the motion-picture and television industries and their suppliers, all those affected and interested in the work. This community is now considerably expanded, including independent production, new media, computers, and telecommunications with an increasingly international flavor. Change is never easy and the differences in culture between these interests is remarkable, considering their merging ideas. The SMPTE must foster an atmosphere where these diverse interests can contribute and work together effectively, looking to the future while respecting their

differing routes to the common table. We have taken the first steps, imperfectly perhaps, but going in the right direction.

Conclusion

During 1992, the SMPTE has made good progress in leading technology through conferences, the *Journal*, tutorials, and engineering activities. The expanding international role can be seen in the First SMPTE European Conference (Cologne, Sept. 18 to 20), in standards prepared of international scope, and in the participation in international conferences such as IBC and HDTV '92 in Kawasaki.

The 20 new or revised standards that have been completed during this year, the 19 new or revised Recommended Practices, and the 2 revised Engineering Guidelines all attest to the current work. The approximately 80 projects in the 8 Technology Committees, involving in total some 600 volunteers, indicate the continuing need for new and timely standards to guide the industries we serve. The publication of the results of studies concerning future image systems and the establishment of the work to follow up the recommendations contained in them, indicate the concern for the coming years.

An expanding community of interest is participating in the SMPTE activities and best advantage of new methods is being taken to ensure the efficiency and timeliness of the standards development. To all the participants, to the Chairs and Secretaries, to the two Directors of Technology, Rami Mina and David Fibush, and to SMPTE Director of Engineering Si Becker and the Headquarters staff, my appreciation and thanks. Through your efforts, the SMPTE is well positioned to continue its record of leadership and achievement in the changing world ahead.

SMPTE Board of Governors Meeting

The SMPTE Board of Governors met on Sunday, November 8, at the Essex Room of the Sheraton Centre Hotel. As the governing body of the Society, the Board has the responsi-

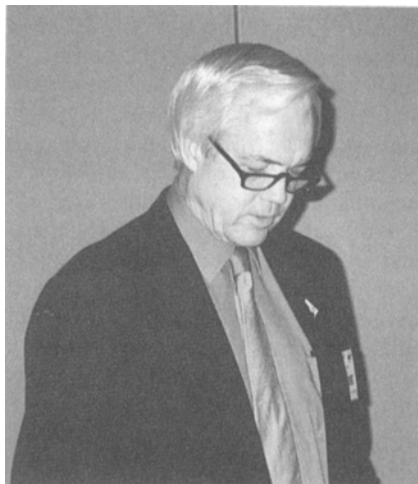
bility of deciding the policy that determines all Society activities within the framework of the SMPTE Constitution and Bylaws. The Board of Governors holds three meetings

each year, one of which coincides with the annual SMPTE Technical Conference and Equipment Exhibit.

Press Briefing

A press briefing was held over breakfast on Wednesday, Nov. 11, at the Metro Toronto Convention Centre.

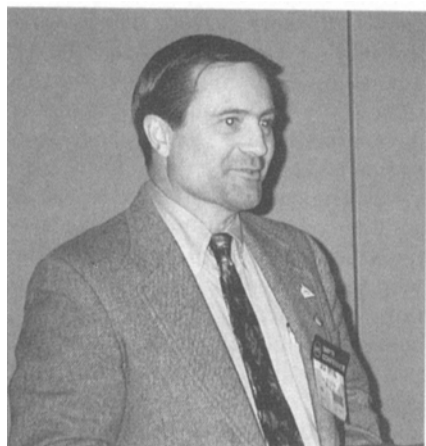
SMPTE Public Relations Coordinator Carol King opened the meeting by introducing the first speaker, SMPTE President Blaine Baker, who made a brief statement regarding the Society's plans for holding future conferences concurrently with other organizations, in order to reduce expenses for both conference attendees and exhibiting companies. He was followed by remarks from Editorial Vice-President Frank Haney, Program Chairman Colin Davis, Conference Vice-President Jack Spring, General Arrangements Chairman Fung Lam, and Engineering Vice-President Ken Davies.



SMPTE President Blaine Baker.



Editorial Vice-President Frank Haney.



Conference Vice-President Jack Spring.



General Arrangements Chairman Fung Lam.



Engineering Vice-President Kenneth P. Davies.

Honors and Awards Luncheon

The annual Honors and Awards Luncheon, held at noon on Tuesday, Nov. 10, at the Convention Centre, was preceded by a procession of colorfully costumed Toronto Metropolitan Police. Accompanied by the skirl of bagpipes, the flags of the U.S., Canada, and the Canadian provinces were carried in by the marchers. It was an exciting introduction to the luncheon, at which the Society's prestigious awards were presented to the various recipients. A highlight of the luncheon was an appearance by humorist Dave Broadfoot, who brought a note of levity to the proceedings. A large crowd enjoyed the festivities. A reception, sponsored by the National Film Board of Canada, Filmlab

Engineering Pty, Ltd., Agfa Canada, Inc., Spot Film and Video, Film Line

Cinema, and Degenkolb Engineering, was held prior to the luncheon.



Blaine Baker addressing the Honors and Awards Luncheon attendees.



SMPTE Executive Vice-President Irwin Young.



Outgoing President Blaine Baker presenting the gavel to incoming President Irwin Young.



A procession of bagpipers opened the Honors and Awards Luncheon.



Honors and Awards Luncheon Guest speaker David Broadfoot.



The flags of the U.S., Canada, and the Canadian Provinces were carried in by the Toronto Metropolitan Police.

The Honors and Awards Presentations of 1992

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 entitled 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



Recipients of the 1992 Honors and Awards (seated, L-R): Ott H. Coelln, Robert M. Greenberg, Milton R. Shefter, Charles A. Steinberg, Joseph P. Pepe, James R. Davidson; (standing): Ray M. Dolby, Ed Zwaneveld, LeRoy DeMarsh, Peter D. Symes, James Murray, Bob Elkind, David Fibush, and Chojuro Yamamitsu. Not present for the photograph were Ronald W. Jarvis, Howard N. Miller, William F. Schreiber, Kenneth F. Holland, Charles W. Rhodes, and E. Fraser Morrison.

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 Gold Medal, and the Samuel L. Warner Memorial Medal all recognize achievement in the special fields of accomplishment described in the following pages.

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 1992 Citation for Outstanding Service is presented to the following:

Peter D. Symes, in recognition of his efforts in bringing about the formation of the Sacramento Section of the SMPTE and for his active participation in the Society over many years; **James**

R. Davidson, in recognition of his efforts to organize and establish the Houston Section of the SMPTE and for his long-term support of SMPTE activities; and **Milton R. Shefter**, in recognition of his significant contributions to the Hollywood Section over a prolonged period of time and for his active participation in the arrangements for SMPTE national conferences.

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 1992 Presidential Proclamation Award is presented to **Ronald W. Jarvis**, in recognition of his leadership in directing many technical film innovations and for his encouragement and support of employee participation in the SMPTE; **Howard Miller**, in recognition of his continued pursuit of new technology and his active support of SMPTE and other industry engineering committees; and **Charles A. Steinberg**, in recognition of his outstanding contributions to the industry

and of his long-term support of SMPTE activities.

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 score. Papers published in the Journal are eligible only if any previous publication was by the Society.

The 1991 Journal Award is presented to **William F. Schreiber** for his article, "Considerations in the Design of HDTV Systems for Terrestrial Broadcasting," published in the September 1991 *SMPTE Journal*.

The Journal Certificate Award

The 1991 Journal Certificate Awards are presented to **Bob Elkind** and **David Fibush** for their article, "Proposal for Error Detection and Handling in Digital Studio Equipment," published in the December 1991 *SMPTE Journal*; and to **L. E. DeMarsh**, for "HDTV

Colorimetry," a summary of the activities of the SMPTE Ad Hoc Group on HDTV Production Colorimetry, published in the October 1991 *SMPTE 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 film and television imaging systems, whereby the combined advantages both contribute to the further development of visual communication systems.

The 1992 SMPTE Agfa-Gevaert Gold Medal Award is presented to **Kenneth F. Holland**, in recognition of his contributions and leadership in developing and improving methods of interfacing video and film images. He has been significantly involved in developing new and innovative technology for image conversion throughout his career. This includes the first theatrical films made from videotape recordings, HDTV conversions, and electronic film registration.

The 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 educational process at any or all levels.

The 1992 Eastman Kodak Gold Medal Award is awarded to **Ott H. Coelln**, in recognition for pioneering publications addressing the art and science of nontheatrical film and television, establishing organizations for the dissemination of visual media information for industrial and educational producers, and promoting the Archives of Factual Film.

The Fuji Gold Medal Award

It is the purpose of the 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 1992 Fuji Gold Medal Award is presented to **Robert M. Greenberg**, in recognition of his achievements in the unique integration of film, video, and computer-imaging techniques.

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 1992 John Grierson International Gold Medal Award is presented to **James Murray**, executive producer of *The Nature of Things*. From the first exposure of the film image through the various stages of processing, printing, color balancing, post-production, and video transfer, meticulous attention to detail by people of outstanding talent and commitment has made *The Nature of Things* an international leader in natural history and environmental filmmaking for more than 30 years. James Murray has led the remarkable team that produced the series for most of its history.

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 and television use.

The 1992 Technicolor/Herbert T. Kalmus Gold Medal Award is presented to **Joseph P. Pepe** in recognition of his role in the translation of T-grain emulsions into motion-picture films. T-grains represent a most significant advancement in emulsion technology, and their optimization to the unique needs of the motion-picture industry made possible films that are not only faster and more light-sensitive but also sharper and ultrafine-grained. Dr. Pepe's efforts in this area of research have resulted in a major improvement in the quality of motion-picture film.

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 or contributions in the research or development of new techniques and/or equipment that have contributed significantly to the advancement of audio and television magnetic recording and reproduction.

The 1992 Alexander M. Poniatoff Gold Medal Award is presented to **Chojuro Yamamitsu**, in recognition of his contributions to videotape recording technology and standards spanning over 30 years. He played a key role in the development of the M, MII, and D-3 formats. He also contributed to VHS, 8mm, analog high-definition, and consumer digital formats.

The David Sarnoff Gold 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 1992 David Sarnoff Gold Medal Award is presented to **Charles W. Rhodes**, in recognition of numerous significant contributions to the television industry in the standardization and enhancement of television signal quality analysis through development of test signals, evaluation procedures, and measurement devices.

The Samuel L. Warner Memorial Medal Award

This award honors an individual by recognizing outstanding contributions in the design and development of new and improved methods and/or apparatus for sound-on-film motion pictures.

The 1992 Samuel L. Warner Memorial Award is presented to **Ed Zwaneveld**, in recognition of his initiation and direction of an evolutionary, compatible approach to the development of digital optical sound on film, an automated R-DAT-based digital sound-effects library system, the development of dual-element photocell detector technology for monitoring sound-track application on print film, and the development of digital sound signature



E. Fraser Morrison accepting the SMPTE Progress Medal from Blaine Baker.



Blaine Baker presenting Ray Dolby with Honorary Membership in the Society.

sampling and matching technology for film projectors and VTRs.

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 1992 Progress Medal is awarded to **E. Fraser Morrison**, who is responsible for the planning and design of digital magnetic tape recorders, heading the development team that designed the processing electronics for the experimental

D-1 and D-2 recorders. He has also played a significant role in the standardization of the D-1 and D-2 formats. His many contributions have resulted in a significant advance in the development of television technology.

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 1992 Honorary Membership is presented to **Ray M. Dolby**, in recognition of his significant developments in audio noise reduction, cinema stereo, and consumer audio and video recording and reproduction equipment. Dolby technology is recognized and acclaimed throughout the world in audio, video, and film production. Ray Dolby also played a vital role in the development of the world's first practical videotape recorder, the Ampex VRX-1000.

Fellows Luncheon

The Fellows Luncheon was held on Wednesday, Nov. 11, at L'Hotel. The luncheon was held to honor newly elected Fellows, to introduce them to their peers, and to present them with plaques. Attendance was limited to Fellows and Life Fellows. A reception, sponsored by Adcom Electronics, preceded the luncheon.

SMPTE Past-President Maurice French was the invited luncheon speaker. The text of his speech appears in the following pages.



A view of the dais during the Fellows Luncheon.

Together We Can Make the Future Happen

By Maurice L. French, Past-President, SMPTE

Good afternoon, Mr. President, Officers, and Fellows of the Society. Welcome to Canada, a progressive but changing land where recently much has been proposed, discussed, and written about distinct societies and a new Constitution. The SMPTE does not have to hold a referendum or enter into debate about its status in the world of motion pictures and television. Its long record of achievement and service has already established it as a very distinct Society with an acceptable Constitution. I am certainly most honoured to have this opportunity to address such a distinguished gathering. The Fellows Luncheon is indeed a very special event in our Society's calendar, a time to renew friendships, to reminisce, and an occasion to congratulate the new Fellows of our Society.

One of the duties of the Past-President is to assume the role of Chairman of the Fellows Qualifications Committee and, as such, I would like to commend and congratulate those of you who are receiving your Fellow Membership today. The Committee's task was not an easy one. Many names were submitted for consideration and selection was difficult. You should be very proud of this recognition. You have, by proficiency and contribution, attained an outstanding rank among engineers or executives in the motion-picture, television, or related industries, and I join the Society's Fellows in welcoming you here today.

One of our former Presidents, Robert Smith, was speaking on the honour of being a Fellow and how selective the Society is. He later received a letter from a new Fellow saying that his Fellow's plaque now hangs in a more prominent position in his den, slightly above his birth certificate but a little below his marriage certificate. When President Blaine Baker invited me to be the Fellows Luncheon speaker I, of course, accepted but asked him, out of courtesy, if he had a specific topic in mind. When he replied, "That's your problem," I knew right away that he had not lost his edge



Fellows Luncheon Speaker Maurice French.

as a dynamic executive. I can, however, now tell you that if any problems did exist, they are now completely solved, since the meal that we have just enjoyed was of excellent value and now I do not feel that I am speaking to a paid audience.

The timing of the invitation to speak at this location was most appropriate. I began my membership in the Society here in Toronto over three decades ago, and this will be the last opportunity that I will have to address you as an Officer of the Society. But, as I have often said, in life it is the journey and not the destination that is important. And what an eventful and exciting journey it has been for me through the years as a member of this Society — a Society that was founded 76 years ago to bring order out of chaos in a booming motion-picture industry. The standardization work that was undertaken during those early years was of great benefit, and the first milestone in our Society's history was reached when 35mm motion-picture film became a world standard. This standard has lasted throughout the years and still provides the tremendous advantage of international use and exchange of film material, a medium

that is an important part of today's and tomorrow's high-definition image technology.

The second milestone was reached in 1950, when the Society added "television" to its name and became the Society of Motion Picture and Television Engineers. This period was the dawn of a technology that was to become available to millions of people. Viewers could now watch the events that were being acted on the world stage from chairs in their living rooms. The impact was rapid and consequential. New demands were placed on our Society, but through the reliable and conscientious effort of an expanding and increasing membership, it was able to adapt and adjust to meet the needs of the global television age.

Since the beginning of this decade we have witnessed a period of phenomenal technological advancement, superimposed on a backdrop of social, political, and economic change unprecedented in the history of our planet. Have we as a Society reached another milestone, a landmark, an occasion, or event? I believe we have, and that this year, 1992, will be recorded as the year that our Society embraced computer technology. There has been an eruption, and a once-referred-to digital island in the analog ocean is rapidly becoming a continent. We are at a critical stage. Our Society has a very full agenda, but only history will show how much we have accomplished. Douglas MacArthur reminded us that, "There is no security on this earth; there is only opportunity." We have an opportunity, as the triad of photographic, electronic, and computer sciences are now with digital technology intrinsically combined, and emerging from this composite is the exciting future of electronic imaging and advanced television. Dean Rusk, the former U.S. Secretary of State, said, "The pace of events is moving so fast that unless we can find some way to keep our sights on tomorrow we cannot expect to be in touch with today."

The theme of this conference, "Images in Motion, the Second Century," underscores the challenge for us to maintain our momentum and to keep our sights on tomorrow so that, as a Society, we are in touch with today. But can we meet the challenge? I believe we can, but to be successful we must build on past procedures and practices that have sustained and enhanced our position as the world's leading scientific engineering society in the motion-picture and television industry.

Fundamental to our future success is reference and adherence to the purpose for which our Society was founded. This carefully written statement by our founding members has met the test of time, remained unchanged, and brought us to where we are today. But will it serve tomorrow, you may ask. That question was faced three years ago when, after considerable debate, the Board of Governors approved our Mission Statement, a statement for the future that did not discard or fundamentally change our original purpose. My mother was a teacher of the spoken word and, in thinking about our purpose, I recall one verse of the many that she taught me. "One ship goes east and one ship goes west by the self-same wind that blows, but it is the set of the sails and not the gales that determines the way it goes."

As a Society we are striving to be what we are, and this is the first step to becoming better than we are. Our identity as the Society of Motion Picture and Television Engineers is a valuable asset. It is established internationally and is indelible in the minds of those associated with our industry. Let us not be tempted, because it is fashionable or may be perceived by some to create the illusion of progress, in a time of converging technology, to tinker with or change our name. We may get lost in the shuffle, and it has taken many years and considerable effort to establish the name that is recognized with respect worldwide.

Standardization and the SMPTE are synonymous. The dedicated participation of our membership in standards activities has produced a record of excellence. Our system, which complies with due process to seek concurrence, to develop voluntary standards, is unique and of vital necessity to our industry. The added participation, support, and cooperation of the new con-

verging computer industry to standardization is paramount to our mutual success. I believe that an investment in standardization is an investment in the creation of opportunity for the future.

Will Rogers once said, "Plans get you into things, but you have to work your way out." Action will remove the doubt that theory cannot solve. Therefore, we as a Society must pick up the gauntlet and maintain a strong, definitive world leadership role. We must initiate, not react; and we must facilitate communication between technologies to ensure compatibility essential to the economic viability of program and information exchange. The product of our industry is communication, to bring to our customers, the viewers, exciting high-quality images and sounds that capture, over a broad spectrum, events or performances of our time — the Middle East, the changing face of Europe, the spectacle of the Olympics, conquest of outer space, or an Academy performance.

I have never been a proponent of isolationism. "Clapping with the right hand only will not produce a noise." Therefore, when I was President, I certainly welcomed the opportunity to make our Society truly international. I encouraged the formation of new sections where need and value to the membership was apparent. In Europe, four new sections were inaugurated during my term of office. With sound and vision as the catalyst, a second Australian Section is now a reality. Sound and Vision is the premier imaging and sound conference in the southern hemisphere.

The new sections in Europe joined together in September to stage the first SMPTE European conference. The conference was held in Cologne, Germany. This annual event will also be staged in other European cities. With a changing Europe and our heightened presence there, a petition from our members in Estonia, Latvia, and Lithuania to form a Baltic Section would not be a surprise to me. We also have a large membership in France, and a second section in Italy, I understand, is a distinct possibility. There is a good opportunity for a section in Japan, and this could promote SMPTE activity in the Far East. In the U.S., the Society formed a new section in Sacramento, and the very successful television conferences alternating between various sections and the San

Francisco Section held for the past 26 years are testimony to success. I was once referred to as an evangelist for the Society. It was not until I had almost finished extolling the benefits of a local section to a small but enthusiastic group of members in New Zealand and concluded by saying, "May I leave some literature with you?" that I realized the truth of that characterization. Indeed, local sections form the nucleus, the critical mass that individually or collectively creates activity and stimulates interest.

The annual conference is an important source of Society income. Its assemblies are sites for our equipment exhibits and forums for our educational activities, for the presentation of technical papers, workshops, and the increasingly demanded tutorial sessions. These conferences, reflecting new discoveries, also provide many of the scientific, technical, and tutorial papers that are published in the *SMPTE Journal* for worldwide circulation to our members and subscribers.

Maintaining or increasing our momentum to keep ahead of new and converging technology in an economic climate where downsizing, restructuring, and early retirement are actions that affect our Society presents a demanding task, but a task that we must vigorously apply ourselves to. All of you here, by your commitment, dedication, and hard work, have built our Society to what it is today. The Officers and Board of Governors have worked to position our Society for the future. We have a record of achievement, an infrastructure for success, and a Society whose strength is its members. To manage we need the participation of all our members. "Many hands make light the work."

In 1986 we had a membership of 9081. In September 1992, almost six years later, the Society's membership was 9140, a net increase of only 59 members. However, it is not so much where we are that's important but rather in what direction we're moving. We need to actively attract new members, particularly those who are engaged in the converging digital technologies and where mutual benefit would result. We must be sensitive to demand and foster activities to retain our members. Additionally, we need to encourage groups of members to form new local sections to further broaden our base, to support our initiatives, and

to maintain our position of strength and effectiveness as an international Society.

The Fellows of the Society have the reputation as the recognized leaders and experts in our industry, and as we begin a new era in technology, there is an important task for you. I urge you to make a conscious effort to assume an ambassador's role for the Society, to convey to the industry at every opportunity our Society's mission, our new initiatives, and the benefits of membership. I believe you can help our Society achieve its objectives and that

your actions will serve to motivate all members to contribute.

As a result of a suggestion made to me at the last Fellows' Luncheon, a new, distinctively colored, red and gold Fellow Member pin is now available. I hope that wearing the new pin will aid you in your mission.

Over 33 years ago a now Honorary Member, Rodger Ross, who is here with us today, stopped in at my office and spent a few minutes telling me about the SMPTE. I signed the membership application form that he had by chance brought with him, and the

rest of the story you all know. I would like to thank the Canadian Broadcasting Corporation for their long and sustained commitment in sponsoring my participation in the Society. I would also like to thank you for being so attentive today and for your many years of friendship, support, and encouragement. I am very positive about the future of our Society. However, you cannot plough a field by merely turning it over in your mind. Let us maintain the momentum. Together we can make the future happen.

New Fellows of the Society

The Fellows Luncheon was held in Ballroom B of L'Hotel on Wednesday, Nov. 11. A Fellow of the Society is one who is no less than 30 years of age and who has, by proficiency and contributions, attained an outstanding rank among engineers or executives in the motion-picture, television, or related industries.

During the luncheon, which featured an address by SMPTE Past-President Maurice French, 15 SMPTE members were elevated to the rank of Fellow. Their names and company affiliations follow:

David E. Acker, FOR•A Corp. of America

Per Appelquist, Sveriges Television

Richard McRae Barton, Federation of Australian Commercial Television Stations (FACTS)

Marcel Carrière, National Film Board of Canada (NFB)

Jules Cohen, Jules Cohen and Associates, P.C.

Pete Comandini, YCM Laboratories

John Hibbett DeWitt, Jr., Consultant

Gerald Finn, Pasadena City College

Alfred F. Giddings, Images Unlimited, Inc.

Michael O. E. Hausdörfer, Broadcast Television Systems GmbH

John G. S. Ive, Sony Broadcast and Communications

Charles A. Poynton, Sun Microsystems Computer Corp.

Andrew G. Setos, Fox, Inc.

Daniel Edward Slusser, Universal City Studios, MCA Inc., and Universal Facilities Rental Division

Peter D. Symes, Grass Valley Group



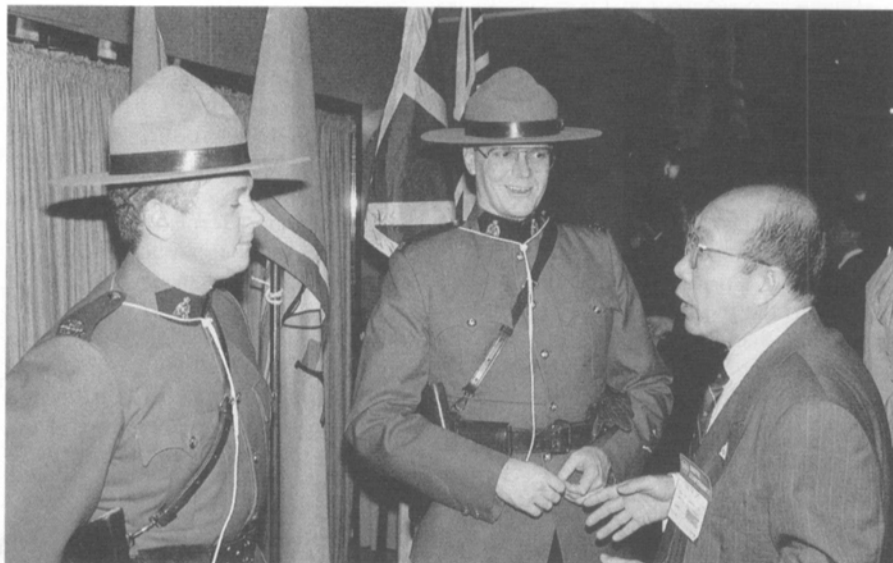
Blaine Baker (standing, far left) and Maurice French (standing, far right) with the newly named SMPTE Fellows: (Standing from left): Jules Cohen, Charles Poynton, Peter D. Symes, David E. Acker, Gerald Finn, Michael O. E. Hausdörfer, and Per Appelquist. Seated from left: Marcel Carrière, Richard McRae Barton, Andrew G. Setos, Daniel Edward Slusser, Pete Comandini, and John G. S. Ive. Missing from the picture are Alfred F. Giddings and John Hibbett DeWitt, Jr.

Opening Reception

An opening reception was held on Tuesday, Nov. 10, from 6:00 to 8:00 p.m., in the beautiful ballroom of L'Hotel. Guests enjoyed a relaxed evening of socializing with both new and old acquaintances, accompanied by soft music and refreshments courtesy of the Society. Members of the Royal Canadian Mounted Police also attended the reception and mingled with the guests.

SMPTE Banquet

The program of conference special events closed with the annual banquet on Thursday evening, Nov. 12, from 7:00 p.m. to midnight, in the specially decorated Concert Hall of the Royal York Hotel. Guests enjoyed a lively evening of cocktails, dinner, and dancing to the music of the famous Spitfire Band. A performance by Showtime, an all-male chorus, rounded out the evening's entertainment. The banquet provided a grand finale to the program of social activities and left attendees looking forward to the next conference.



Members of the Royal Canadian Mounted Police talking with General Arrangements Chairman Fung F. Lam at the opening reception.



Conference Vice-President L. John Spring, Jr., addressing guests at the banquet.



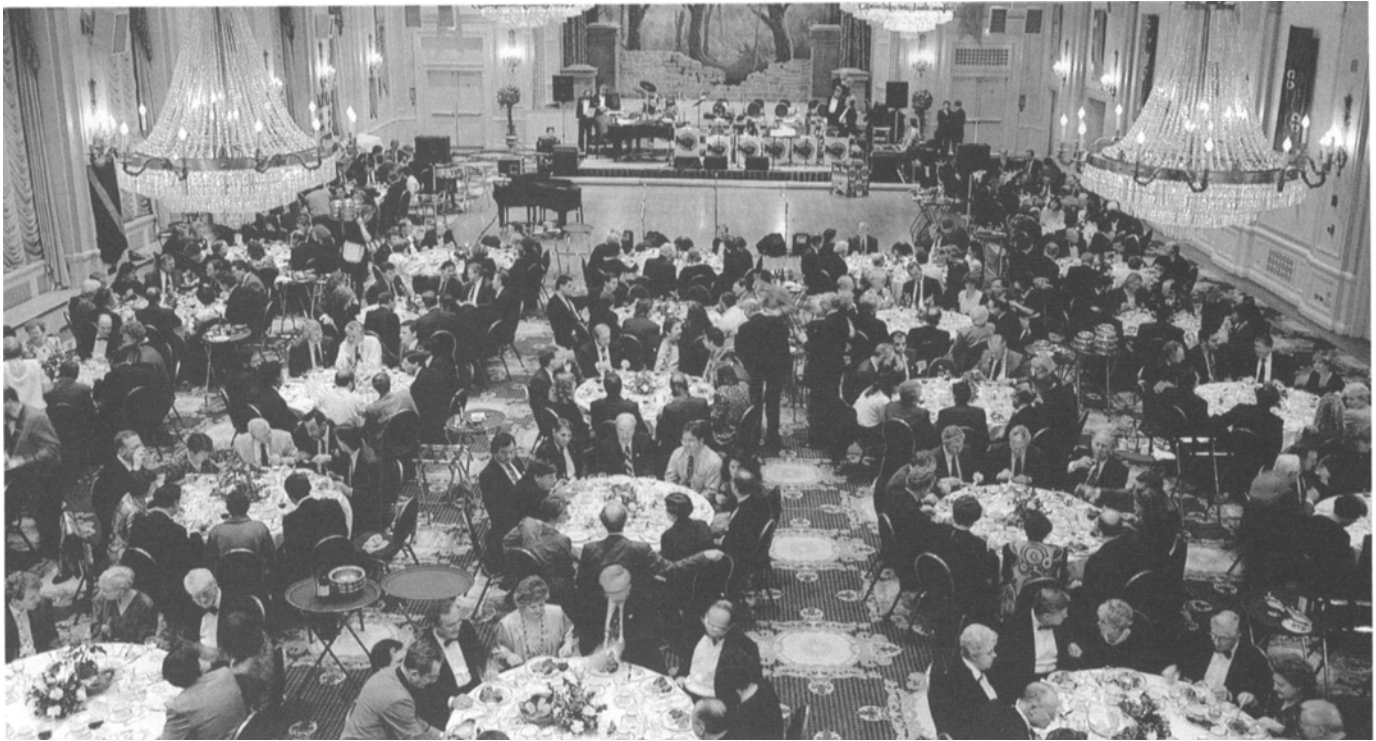
A highlight of the banquet was entertainment by the Showtime chorus.



General Arrangements Chairman Fung F. Lam expressing thanks to conference participants at the banquet.



A bouquet of flowers was presented to Partners Program chairwomen Lenore Wilkinson and Kay George in appreciation of their fine work.



Guests enjoying the annual banquet in the beautiful Concert Hall of the Royal York Hotel.

SMPTE Booth

The SMPTE Booth, located on the main floor, attracted a constant stream of visitors. Daureen Matera, Membership Coordinator, and her staff of student volunteers were ably assisted by Opening Films/Tapes Chairman Grant Dearnaley and Membership Chairman Rene Villeneuve, National Film Board of Canada. A total of 67 new members joined the Society's ranks during the conference, and several students from Sheridan College expressed interest in forming a new student chapter. Many people stopped by to pick up applications for membership and to get information about membership services, section meetings, publications, test films, and other Society activities. A number of SMPTE books and preprints of technical papers were sold at the booth as well.

Partners Program

Companions attending the conference enjoyed a well-planned schedule of events directed by chairwomen Kay George and Lenore Wilkinson. Ninety registrants participated in the program, which began with a Welcoming Tea on Monday, Nov. 9.

On Tuesday, the group was given tours of the newly refurbished Elgin and Winter Garden Theaters, then joined other conference attendees at the Honors and Awards Luncheon. On Wednesday, the itinerary included an opportunity to visit Niagara Falls and the quaint town of Niagara-on-the-Lake, followed by luncheon at historic Queenston Heights, on the steep heights overlooking the Niagara. On Thursday, the group enjoyed a scenic drive through the city of Toronto. The program was capped by luncheon at the elegant Vaughan Estate on the Don River.

Coffee Club

Registrants enjoyed Danish pastry and fresh coffee each morning, from 7:30 a.m. to 10:00 a.m., Tuesday through Friday, courtesy of Eastman Kodak Co. Attendees and participants in the technical papers presentations welcomed this eye-opening start to each day's activities.

Acknowledgments

The annual conference would not have been the same without the support of its many sponsors. The Society

wishes to thank the following organizations for providing necessary services to the 134th SMPTE Technical Conference: *Banquet Wines/Entertainment Showtime*, NBC and Ampex Canada, Inc.; *Banquet Reception*, Command Post & Transfer Corp./Medallion; PFA Film and Video; *Banquet Entertainment*, National Film Board of Canada, Universal City Studios, Inc., Fuji Photo Film Canada Inc.; *Banquet Props*, Canadian Broadcasting Corp.; *Buses*, Fuji Photo Film Canada, Inc.; *Coffee Club*, Eastman Kodak Co.; *Commemorative Pins*, Municipality of Metropolitan Toronto, Adcom Electronics; *Committee Chairman Award*, Ontario Film Development Corp., National Film Services; *Fellows Reception*, Adco Electronics; *Honors and Awards Board of Governors Reception*, Dolby Laboratories, Inc.; *Honors and Awards Reception*, National Film Board of Canada, Filmlab Engineering Pty Ltd., Agfa Canada, Inc., Spot Film and Video, Film Line Cinema, and Degenkolb Engineering; *Imax Reception*, Consolidated Film Industries, Kodak Canada Inc., Film House, Imax Corp., and 3M Professional Audio/Video Products Div.; *Partners Program*, Sony Canada Ltd. and Rank Film Laboratories

Group; *Promotional Videotapes*, Allied Film and Video Services, DuArt Film and Video Laboratories, and Motion Picture Laboratories; *Signs*, 3M Canada Inc., *Post Experience Tutorial Lunch*, Kodak Canada Inc. Thanks are also due to Sponsorship Chairman Cyril Drabinsky of The Film House, and the many other individuals who gave of their time, experience, and energy to make the conference a resounding success.

Equipment Exhibit

Following the traditional ribbon-cutting ceremony by President Blaine Baker and Conference Vice-President L. John Spring, Jr., the exhibit was officially opened with 185 companies displaying their latest state-of-the-art equipment. The exhibit area was located in Halls A, B, and C on Level 3 of the Metro Convention Centre. New features at this year's show included Bonus Certificate Booklets offering discounts on specific manufacturers' equipment, and Publication Bins, where literature from various publishers was available. The exhibit, which elicited a very positive response from both exhibitors and attendees, attracted an informed and enthusiastic audience. Products were on view from 10:00 a.m. to 6:00 p.m. from Tuesday, Nov. 10, through Friday, Nov. 13, when it closed at 2:00 p.m.

List of Exhibitors

Abekas Video Systems, Inc.
 Acura Technology Group, Inc.
 Adcom Electronics Ltd.
 The Adelaide Works
 Agfa Division
 Alexander Batteries
 The Allen Products Co.
 Alpha Image - Dynatech
 Alta - Dynatech
 AMEK/Tac U.S. Operations
 AMI Publishing
 AmiWare, Inc.
 Amplis Foto Inc.
 AMS
 Amtel Systems
 Anton/Bauer, Inc.
 Artel Communications
 Association of Cinema and Video Laboratories, Inc. (ACVL)
 AT&T - Network Systems



The equipment exhibit was officially opened with a ribbon-cutting ceremony by President Blaine Baker and Conference Vice-President L. John Spring, Jr.

Audio Accessories
 Audio Precision
 AudioVision Productions
 Avid Technology, Inc.
 Avitel Electronics Ltd.
 A.V. R. Communications, Inc.
 AVS Broadcast Inc.
 Barco, Inc.
 B.E.E.R., Inc.
 BHP, Inc.
 The BroadCast Store, Inc.
 Broadcast Video Systems Ltd.
 Broadcaster Magazine
 BTS, Broadcast Television Systems, Inc.
 Calaway - Dynatech
 Canadian Society of Cinematographers
 Canon U.S.A., Inc.
 Captive Systems
 Dwight Cavendish Co.
 Central Dynamics Ltd.
 Cinema Products Corp.
 Cinequip, Inc.
 Communiquip, Inc.
 Colorgraphic - Dynatech
 Colorgraphics
 Comfort Sound Recording Studio, Inc.
 Computer Prompting & Captioning Co.
 da Vinci - Dynatech
 del Synchro Ltd.
 DeSisti Lighting/P.S. Lights Inc.
 Digital Evolution Magazine
 Digital Processing Systems Inc.
 Discreet Logic Inc.
 Dolby Laboratories, Inc.
 Dorrough Electronics
 Drake Electronics
 DSC Laboratories
 Dan Dugan Sound Design
 Dynatech Video Group

Editing Machines Corp.
 Evertz Microsystems Ltd.
 Faroudja Laboratories
 For.A Corp. of America
 Forefront Graphics Corp.
 Frezzolini/PEP, Inc.
 Fujinon Inc.
 Gefen Systems
 Gennum Corp.
 Gepco International, Inc.
 Glenwood Systems, Inc.
 Gold Star Systems, Inc.
 Grass Valley Group
 Hampton Int'l. Communications
 Harrison by GLW, Inc.
 Hewlett-Packard Co. (SPD Div.)
 High Tech Equipment Brokers
 Hitachi Denshi America, Ltd.
 David Horowitz
 Ikegami Electronics (U.S.A), Inc.
 Image Video Ltd.
 Imax Corp.
 In-Motion Magazine
 Iris Technologies, Inc.
 ITVA Canada
 Jastram Filmtechnik
 Jensen Transformers, Inc.
 JVC Canada Inc.
 Leitch Inc.
 Lightworks/O.L.E. Canada
 Lipsner-Smith Co.
 Lorne Lapham Sales & Rentals Inc.
 Lowel-Light Mfg. Inc.
 Magna-Tech Electronic Co., Inc.
 Management Graphics, Inc.
 Mark IV Audio Canada, Inc.
 MDG Inc.
 Meret Optical Communications
 Merlin Engineering Works
 Microtime, Inc.



A partial view of the exhibit floor.

Miller Tripods Canada
 Mirage Systems Corp.
 Miranda Technologies, Inc.
 Mole-Richardson Co
 Montreux Intl. Symposium and
 Technical Exhibition
 Multidyne Electronics Inc.
 Nady Systems, Inc.
 Neotek Corp.
 Neve
 Newark Electronics
 NVision, Inc.
 O'Connor Engineering Labs
 Odetics Broadcast
 O.L.E. Canada/Lightworks
 Optical Disc Corp.
 Oxberry, Inc.
 Panasonic Broadcast and Television
 Systems Co.
 PESA Chyron Group
 Phillips Business Information, Inc.
 Pinnacle Systems, Inc.
 Pioneer Communications of
 America, Inc.
 Plastic Reel Corp. of America
 Playback Magazine
 Post Magazine
 Precision Camera, Inc.
 Producer Magazine
 Professional Sound Magazine
 Pylon Electronics, Inc.
 Q-TV
 Quanta - Dynatech
 Quantel Corp.
 Quebec Government Office
 Quebec Ministry of
 International Affairs
 RFX
 Rice Communications
 Ross Video Ltd.
 RTI-Research Technology Intl.
 Sachtler Corp. of America

San Lab Systems, Inc.
 Saved by Technology
 Scantex Laboratories, Inc.
 ScheduALL by VizuALL, Inc.
 Siemens Audio Inc.
 Sigma Electronics, Inc.
 Skotel Corp.
 S.M. Technologies Inc.
 Snell & Wilcox
 Solid State Logic
 Solutec Ltd.
 Sonic Solutions
 Sony of Canada Ltd.
 Sound Ideas
 Steenbeck Inc.
 Studer Revox Canada Ltd.
 Supercredit Ltd.
 Synergistic Technologies, Inc.
 The Technology Council of Motion
 Picture-Television Industry
 Technovision
 Tektronix, Inc.
 Telcom Research
 Telecast Fiber Systems, Inc.
 Telemetrics, Inc.
 Telescript Inc.
 Telex Communications, Inc.
 Trompeter Electronics Inc.
 TSM (Total Spectrum Mfg. Inc.)
 Ultimatte Corp.
 Utah Scientific - Dynatech
 VGV, Inc.
 Video Design Pro
 Videomedia, Inc.
 Videotek, Inc.
 Vinten Broadcast Inc.
 Vistek Electronics Ltd.
 Ward-Beck Systems Ltd.
 Wheatstone Corp.
 William F. White Ltd.
 Wohler Technologies
 Zonal Canada Limited

Association of Cinema and Video Laboratories

The Association of Cinema and Video Laboratories (ACVL) held its annual North American laboratory members annual meeting and technical/business sessions meetings, in addition to a board of directors meeting, Nov. 7 to 8 at the Sheraton Centre Hotel in Toronto, Canada. The meetings were held in conjunction with the SMPTE Conference, and included a reception and dinner on Saturday evening.

A new slate of officers was elected for 1993, as follows: President, James 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. The outgoing president is Ed Janow, WRS Motion Picture Labs.

A technical program was held from 9:30 a.m. to 5:00 p.m. at the Sheraton Centre Hotel. Eight papers were given on various subjects of interest to attendees by representatives of major film and video companies, in addition to a presentation introducing the *ACVL Revised Fifth Edition Handbook*.

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. The Association is concerned with industry relations, product specifications, the impact of government regulations, and all other areas of interest to the motion-picture and video laboratory industry.

As the largest association devoted exclusively to these highly specialized industries, the ACVL membership is composed of a majority of the professional motion-picture and video post-production laboratories in North America. It also includes leading laboratories in other parts of the world. To obtain further information, please write to The ACVL, 7095 Hollywood Blvd., Suite 751A, Hollywood, CA 90028.

—Joyce R. Hurwitz